

# EXHIBIT E

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
AUSTIN DIVISION**

In re CASSAVA SCIENCES, INC.  
SECURITIES LITIGATION

Master File No. 1:21-cv-00751-DAE

REPORT ON MARKET EFFICIENCY AND DAMAGES METHODOLOGY

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MARCH 13, 2024

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**I. SCOPE OF PROJECT AND REPORT**

1. Plaintiffs' Lead Counsel, Robbins Geller Rudman & Dowd LLP, asked me to determine whether the common stock and exchange-traded options of Cassava Sciences, Inc. ("Cassava" or the "Company") traded in efficient markets during the period from 14 September 2020 through 12 October 2023, inclusive (the "Class Period").<sup>1</sup>
2. Lead Counsel also asked me to determine if there is a methodology consistent with Plaintiffs' theory of liability that can be used to compute Section 10(b) damages commonly for all Class members. Section 10(b) damages are compensable losses for Class members who have claims pursuant to Section 10(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Securities and Exchange Commission ("SEC") Rule 10b-5 adopted thereunder (collectively, "Section 10(b)").
3. To make these determinations, I analyzed the markets for Cassava common stock and exchange-traded options (collectively, the "Cassava Securities"), the price behavior of the Cassava Securities, and the factors that are generally accepted indicators of market efficiency for publicly traded securities. I examined Company press releases, equity analyst reports, news articles, SEC filings, common stock prices, trading volume, prices of the put and call options, performance of the overall stock market, performance of Cassava's industry sector, as well as other pertinent data and documents. I read the Consolidated Complaint for Violations of the Federal Securities Laws in this action, which was filed 18 August 2022 (the "Complaint"), the Court's Order regarding the Motion to Dismiss, filed 11 May 2023 ("MTD Order"), and Plaintiffs' motion to supplement the Complaint. Exhibit-1 hereto lists the documents and data I considered in preparing this report and arriving at the opinions expressed herein.
4. This report presents my methodology, findings, and conclusions.

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<sup>1</sup> Plaintiffs' prior Complaint, filed 18 August 2022, lists the class period as 14 September 2020 through 26 July 2022. I understand that Plaintiffs have moved to supplement the Complaint based on events that occurred since and extended the Class Period accordingly. Consequently, I have analyzed the lengthened class period.

5. My work in this matter is ongoing. I reserve the right to amend, refine, or supplement my analyses and opinions in the event that I become aware of additional information, evidence, arguments, or analyses that bear on my work in this matter.

## **II. CREDENTIALS**

6. I am an Associate Professor of Finance at Babson College, and the founder and president of Crowninshield Financial Research, Inc., a financial economics consulting firm.
7. I hold a Ph.D. in Economics from Yale University, a Master of Philosophy degree in Economics from Yale University, a Master of Arts degree in Economics from Yale University, and a Bachelor of Arts degree in Economics from Pomona College. I also hold the Chartered Financial Analyst (“CFA”) designation, granted by the CFA Institute.
8. At Babson College, I have taught undergraduate and MBA-level courses in Capital Markets, Investments, Equity Analysis, Fixed Income Analysis, Financial Management, Risk Management, Quantitative Methods, and Security Valuation. I have also taught executive courses on investments and corporate financial management for numerous corporations. The other courses I have taught are listed in my curriculum vitae, which is attached as Exhibit-2.
9. I have held the Chair in Applied Investments at Babson College and served as the Director of the Stephen D. Cutler Investment Management Center, a research and education center dedicated to the study and teaching of investments and capital markets.
10. Prior to joining the faculty at Babson College, I taught at Boston University. Preceding my academic posts, I was an Economist at the Federal Reserve Bank of Atlanta where my primary responsibilities were to monitor financial markets, analyze proposed regulation, and advise the Bank President in preparation for his participation in meetings of the Federal Open Market Committee – the government body responsible for monetary policy in the United States (“U.S.”).
11. I have published extensively in the field of finance. My finance articles have appeared in the *Atlanta Federal Reserve Bank Economic Review*, *Derivatives Quarterly*, *Derivatives Weekly*, *The Engineering Economist*, *The Journal of Risk*, *The American Bankruptcy Institute Journal*, *The Journal of Financial Planning*, *The Journal of Forensic Economics*, *Managerial Finance*, *Risk Management*, *Primus*, and *The Review of Quantitative Finance*

and Accounting. I am the author of *Finance and Accounting for Project Management*, published by the American Management Association. I wrote two chapters in the book *The Portable MBA in Finance and Accounting* – one on corporate financial planning and the other on risk management. I have presented research at the annual conventions of the American Finance Association, the Academy of Financial Services, the Multinational Finance Society, the Financial Management Association, the Taxpayers Against Fraud Education Fund Conference, and the International Conference on Applied Business Research. I also co-authored papers that have been presented at the Eastern Finance Association meetings, the Midwestern Finance Association meetings, and the Boston Area Finance Symposium. A list of all the publications I authored in the past ten years can be found in my curriculum vitae, which is attached as Exhibit-2.

12. I have been selected to review papers for numerous finance journals and conferences. Specifically, I have reviewed finance textbook manuscripts for Prentice-Hall, Elsevier, Blackwell, and Southwestern Publishing. I have been quoted on matters relating to finance and investments in *The Wall Street Journal*, *The Washington Post*, *The New York Times*, *The Financial Times*, *The Boston Globe*, and *Bloomberg News*. Further, my research relating to financial analysis and valuation has been discussed in *The Wall Street Journal*, *Bond Buyer*, and *Grant's Municipal Bond Observer*.
13. I am a member of the American Finance Association, the Financial Management Association, the North American Case Research Association, the National Association of Forensic Economics, the CFA Institute, and the CFA Society Boston. I have served as a member of the CFA Society Boston education committee and ethics subcommittee. I also served on the Fixed Income Specialization Examination Committee of the CFA Institute.
14. The CFA designation is the premier credential for financial analysts worldwide. In order to receive this credential, applicants must pass a series of three exams covering such topics as economics, equity analysis, financial valuation, business analysis, quantitative methods, investment analysis, portfolio management, risk management, financial accounting, and ethical and professional standards. For over ten years I taught in the Boston University CFA Review Program and the CFA Society Boston Review Program – two of the leading review programs that prepared candidates for the CFA exams. In both of these programs I taught candidates at the most advanced level of the CFA curriculum.



15. In addition to my teaching, research, and academic community responsibilities, I practice extensively as a financial consultant. My clients are primarily law firms that are prominent in securities litigation and have previously included the SEC, the Internal Revenue Service, the Attorney General of the State of Illinois, and the National Association of Securities Dealers. As an expert in financial economics, over the past 25 years, I have conducted analyses and presented opinions related to financial markets, valuation, and damages in more than 200 cases. Exhibit-3 lists my prior testimony over the past four years.
16. I am the sole owner of the consulting firm Crowninshield Financial Research, Inc., which receives compensation for the work performed by me and the staff who assist me. My firm is being compensated at a rate of \$1,050 per hour for my work, and a range of lower rates for analysts and other personnel who are assisting me on this case. My compensation is not contingent on my findings or on the outcome of this matter.

### **III. CONCLUSIONS**

17. Cassava stock traded in an efficient market throughout the Class Period.
18. I examined the generally accepted and widely used indicia of market efficiency set forth in *Cammer v. Bloom*, 711 F. Supp. 1264, 1273 (D.N.J. 1989) (“*Cammer*”) and *Krogman v. Sterritt*, 202 F.R.D. 467, 474-78 (N.D. Tex. 2001) (“*Krogman*”). Consistent with financial economic principles and empirical research, these factors are probative indicators of market efficiency. Cassava stock satisfied the *Cammer* and *Krogman* factors throughout the Class Period.
19. One of the *Cammer* factors is empirical evidence of the subject security demonstrating market efficiency. Cassava stock satisfied this factor test with a high degree of statistical certainty. Statistical analysis examining the behavior of Cassava stock proves that there was a cause-and-effect relationship between the release of Company-specific information and movement in the Cassava stock price. Cassava stock responded to Company-specific information, which is the essence of market efficiency.
20. Similarly, event study analysis demonstrates that there was a cause-and-effect relationship between the release of new, Company-specific information and movements in the prices of Cassava’s put and call options during the Class Period. Cassava’s option prices

responded in a statistically significant fashion to new, Company-specific information, which not only indicates market efficiency, but demonstrates market efficiency.

21. Based on the foregoing, I conclude that Cassava stock and options, *i.e.*, the Cassava Securities, traded in efficient markets throughout the Class Period.<sup>2</sup>
22. Section 10(b) damages in this matter can be computed for all Class members using a common methodology that is consistent with Plaintiffs' theory of liability. Specifically, the out-of-pocket damages model, which is used in virtually all Section 10(b) class action securities cases, is appropriate and applicable here.

#### **IV. FACTUAL BACKGROUND**

##### **A. About the Company and Timeline of Select Important Events**

23. Cassava is a biotechnology company focused on detecting and treating Alzheimer's disease.<sup>3</sup> Throughout the Class Period, the Company had two biopharmaceutical products under development: a blood-based Alzheimer's disease detection product, SavaDx, and an experimental therapy to treat Alzheimer's disease dementia, simufilam.<sup>4</sup> As the Company described it, simufilam is "a proprietary small molecule (oral) drug that represents an entirely new scientific approach to treat neurodegeneration."<sup>5</sup> As of the start of the Class Period, no Alzheimer's disease therapy had been approved by the U.S. Food and Drug Administration ("FDA") since 2003.<sup>6</sup>

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<sup>2</sup> This applies to the entire Class Period; thus, if the Court denied Plaintiffs' motion to supplement, my conclusion would apply equally if it was for a Class Period that ended earlier.

<sup>3</sup> Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2021, filed 1 March 2022, p. 4; Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2022, filed 28 February 2023, p. 5; and Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2023, filed 28 February 2024, p. 6.

<sup>4</sup> Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2021, filed 1 March 2022, p. 4; Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2022, filed 28 February 2023, p. 5; and Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2023, filed 28 February 2024, p. 6.

<sup>5</sup> Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2021, filed 1 March 2022, p. 15; and Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2022, filed 28 February 2023, p. 15.

<sup>6</sup> "Alzheimer's Disease Drug Development Pipeline: 2023," by Jeffrey Cummings et al., *Transitional Research and Clinical Intervention*, vol. 9, no. 2, April-June 2023.

24. The Company had generated no revenues during the Class Period, as it had no approved commercial therapies or products.<sup>7</sup> For the fiscal years (“FY”) 2020, 2021, 2022, and 2023, Cassava reported net losses of \$6.3 million, \$32.4 million, \$76.2 million, and \$97.2 million respectively.<sup>8</sup>
25. Prior to the Class Period, in July 2017, the FDA approved the Company’s Investigational New Drug application, which the Company had filed to further its effort to develop an Alzheimer’s therapy.<sup>9</sup> When it announced this development, Cassava stated that its research and analysis pertaining to simufilam had already been published in peer-reviewed journals such as *Journal of Neuroscience*, *Journal of Biological Chemistry*, *Neurobiology of Aging*, *PLOS-One*, among others.<sup>10</sup>
26. By September of 2019, after completing the Phase 1 and Phase 2a clinical trials of simufilam, the Company announced the start of Phase 2b clinical studies, a placebo-controlled blind trial.<sup>11</sup> The bioanalysis for the Phase 2b clinical studies was to be completed at Lund University in Sweden.<sup>12</sup>
27. Approximately eight months later, on 15 May 2020, the Company announced that the Phase 2b clinical study failed to meet its primary endpoint, indicating that simufilam did not lower certain biomarkers of Alzheimer’s test subjects.<sup>13</sup>
28. Despite the negative Phase 2b results, on 26 August 2020 the Cassava Board of Directors approved a new bonus incentive plan, whereby executives and certain individuals would be rewarded if the Company’s stock price increased to and remained at a specific level for

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<sup>7</sup> Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2020, filed 23 March 2021, p. 33; Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2021, filed 1 March 2022, p. 37; and Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2022, filed 28 February 2023, p. 36.

<sup>8</sup> Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2022, filed 28 February 2023, p. 88; and Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2023, filed 28 February 2024, p. 93.

<sup>9</sup> “Pain Therapeutics Announces FDA Has Cleared an Investigational New Drug (IND) Application for PTI-125,” *GlobeNewswire*, Company press release, 31 July 2017.

<sup>10</sup> “Pain Therapeutics Announces FDA Has Cleared an Investigational New Drug (IND) Application for PTI-125,” *GlobeNewswire*, Company press release, 31 July 2017.

<sup>11</sup> “Cassava Sciences Reports Positive Phase 2a Clinical Results in Alzheimer’s Patients,” *GlobeNewswire*, Company press release, 9 September 2019.

<sup>12</sup> Complaint, ¶94.

<sup>13</sup> “Top-line Results from a Phase 2b Study of PTI-125 in Alzheimer’s Disease Does Not Meet Primary Endpoint,” *Globe Newswire*, Company press release, 15 May 2020.

- 20 consecutive business days. Each of the Defendants participated in the new cash incentive bonus plan.<sup>14</sup>
29. During the Class Period, the Company continued to conduct clinical trials to study the safety and efficacy of simufilam, including Phase 2 and Phase 3 clinical trials.<sup>15</sup> On 14 September 2020, the Class Period's first day, Cassava again reported results from the Phase 2b study. While initially reporting on 15 May 2020 that simufilam was unable to lower levels of biomarkers indicative of Alzheimer's disease, on 14 September 2020 Cassava announced that simufilam "significantly improved an entire panel of validated biomarkers of disease in patients with Alzheimer's disease."<sup>16,17</sup>
30. On 22 February 2021 Cassava reported that it had met with FDA representatives to discuss Phase 2 clinical test results and plans for a Phase 3 study to support a New Drug Application ("NDA") for simufilam. The meeting was deemed successful by the Company, as the Company reported that agreement was reached on key elements of the Phase 3 clinical study to support an NDA.<sup>18</sup>
31. By 6 October 2021, Cassava began a Phase 3 clinical trial for the efficacy of simufilam, called RETHINK-ALZ. The initial study was a 52-week randomized double-blind and placebo-controlled study.<sup>19</sup> Approximately one month later, on 18 November 2021, the Company initiated a second study as part of its Phase 3 trial, REFOCUS-ALZ, a 78-week study.<sup>20</sup> By 13 October 2022 Cassava began an open-label extension study, which was

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<sup>14</sup> Complaint, ¶¶98-104.

<sup>15</sup> Cassava Sciences, Inc., Form 10-K, for the fiscal year ended 31 December 2020, filed 23 March 2021, pp. 8-12; and Cassava Sciences, Inc., Form 10-K, for the fiscal year ended 31 December 2021, filed 1 March 2022, pp. 5-12.

<sup>16</sup> "Cassava Sciences Announces Final Results of a Phase 2b Clinical Study of Sumifilam in Patients with Alzheimer's Disease," *GlobeNewswire*, Company press release, 14 September 2020 7:15AM.

<sup>17</sup> Since March 2020, the Company was engaged in an ongoing open-label study of simufilam (Cassava Sciences, Inc., Form 10-K, for the fiscal year ended 31 December 2020, filed 23 March 2021, p. 16).

<sup>18</sup> "Cassava Sciences Announces Positive End-of-Phase 2 Meeting with FDA and Outlines Pivotal Phase 3 Program for Simufilam in Alzheimer's Disease," *GlobeNewswire*, Company press release, 22 February 2021 8:30AM.

<sup>19</sup> "Cassava Sciences Initiates a Phase 3 Efficacy Trial of Simufilam for the Treatment of Patients with Alzheimer's Disease," *GlobeNewswire*, Company press release, 6 October 2021 8:30AM.

<sup>20</sup> "Cassava Sciences Initiates a Second Phase 3 Study of Simufilam for the Treatment of Patients with Alzheimer's Disease," *GlobeNewswire*, Company press release, 18 November 2021 9:15AM.

neither a blinded nor placebo-controlled study, for Alzheimer's patients who had completed either the RETHINK-ALZ or REFOCUS-ALZ.<sup>21</sup>

32. On 24 January 2023 Cassava announced positive top-line clinical results for its Phase 2 study of simufilam, an open-label study with exploratory efficacy endpoints.<sup>22</sup> This announcement differed from the Phase 2b results announced on 14 September 2020, which were based on a placebo-controlled, double-blind study that lasted 28 days.<sup>23</sup> The results announced on 24 January 2023 pertained to a study that lasted one year and both the health providers and the patients are aware of the drug or treatment being given.<sup>24</sup>

## **B. About the Cassava Securities at Issue**

### **1. Cassava Common Stock**

33. Throughout the Class Period, Cassava's common stock traded on the Nasdaq under the ticker symbol "SAVA."<sup>25</sup>
34. During the Class Period, Cassava completed three secondary offerings to fund the ongoing development of simufilam. The Company's first secondary offering completed during the Class Period closed on 13 November 2020, resulting in the sale of 9,375,000 shares of common stock at a price of \$8.00 per share.<sup>26</sup> Total gross proceeds were approximately \$75.00 million.<sup>27</sup> The Company intended to use the additional cash raised from the secondary offering "to fund a Phase 3 clinical program of simufilam, ... for research and

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<sup>21</sup> "Cassava Sciences Announces Initiation of an Open-label Extension Study," *GlobeNewswire*, Company press release, 13 October 2022 9:15AM.

<sup>22</sup> "Cassava Sciences Announces Positive Top-Line Clinical Results in Phase 2 Study Evaluating Simufilam in Alzheimer's Disease," *GlobeNewswire*, Company press release, 24 January 2023 9:15AM.

<sup>23</sup> "Cassava Sciences Announces Final Results of a Phase 2b Clinical Study of Sumifilam in Patients with Alzheimer's Disease," *GlobeNewswire*, Company press release, 14 September 2020 7:15AM.

<sup>24</sup> "Cassava Sciences Announces Positive Top-Line Clinical Results in Phase 2 Study Evaluating Simufilam in Alzheimer's Disease," *GlobeNewswire*, Company press release, 24 January 2023 9:15AM.

<sup>25</sup> Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2021, filed 1 March 2022, p. 75; Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2022, filed 28 February 2023, p. 75; and Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2023, filed 28 February 2024, p. 79.

<sup>26</sup> Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2020, filed 23 March 2021, p. 71.

<sup>27</sup> "Cassava Sciences Announces Pricing of \$75 Million Public Offering of Common Stock," *GlobeNewswire*, Company press release, 12 November 2020 4:48PM.

development for the Company's product candidates and for general corporate purposes ...  
 .”<sup>28</sup>

35. The Company's next secondary offering completed during the Class Period closed on 12 February 2021, resulting in the sale of 4,081,633 shares of common stock at a price of \$49.00 per share.<sup>29</sup> Total gross proceeds were approximately \$200.00 million. The intended use of the cash raised from that secondary offering was “for working capital and general corporate purposes, including development of simufilam ... .”<sup>30</sup>
36. The Company's third secondary offering completed during the Class Period closed on 22 November 2022, resulting in the sale of 1,666,667 shares of common stock at a price of \$30.00 per share. Total gross proceeds were approximately \$50.00 million. The intended use of the cash raised was “for working capital and general corporate purposes, including development of simufilam ... .”<sup>31</sup>
37. Cassava's stock price at the start of the Class Period stood at \$7.75 per share, according to price data obtained from the Center for Research in Security Prices (“CRSP”), a reliable data source that is widely used by academic researchers and investment professionals. Cassava's stock price peaked during the Class Period at \$135.30 per share on 28 July 2021. By the close of trading on 13 October 2023, Cassava's stock price had fallen to \$14.86 per share – a decline of \$120.44 per share or 89.02% from the Class Period peak. Cassava stock prices during the Class Period are presented in Exhibit-4.
38. Cassava's market capitalization (the aggregate value of all outstanding shares) was \$193.12 million at the start of the Class Period. At its Class Period peak on 28 July 2021, Cassava's market capitalization was \$5.41 billion. By the end of the Class Period, at the close of trading on 13 October 2023, the next trading day after the Class Period ends, the

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<sup>28</sup> “Press Release: Cassava Sciences Announces Pricing of \$75 Million Public Offering of Common Stock,” *Dow Jones Institutional News*, 13 November 2020 9:08AM.

<sup>29</sup> “Press Release: Cassava Sciences Announces Closing of \$200 Million Registered Direct Offering,” *Dow Jones Institutional News*, 12 February 2021 5:08PM.

<sup>30</sup> “Press Release: Cassava Sciences Announces Closing of \$200 Million Registered Direct Offering,” *Dow Jones Institutional News*, 12 February 2021 5:08PM.

<sup>31</sup> “Cassava Sciences Announces \$50 Million Registered Direct Offering of Common Stock,” *GlobeNewswire*, Company press release, 18 November 2022 1:30PM.

Company's market capitalization had fallen to \$626.05 million, representing a decline of \$4.79 billion or 88.44% from the Class Period peak.<sup>32</sup>

## **2. Cassava Options**

39. Stock options are contracts that allow the owner of the contract to buy or sell an underlying stock at a pre-specified price ("strike price") on or up to a specified date ("expiration date"). A call option provides the right, but not the obligation, to purchase a share of the underlying stock at the strike price; a put option contract provides the right, but not the obligation, to sell a share of the underlying stock at the strike price.
40. Exchange-traded option contracts comprise 100 individual options. That is, each option contract entitles the holder to either buy or sell 100 shares of the underlying stock upon exercise.
41. By virtue of their design and mechanics, call option prices tend to increase when the price of the underlying stock increases, and fall when the underlying stock decreases, holding all other relevant variables constant. Put option prices tend to decrease in value when the price of the underlying stock increases, and rise when the underlying stock falls, holding all other relevant variables constant.
42. During the Class Period, Cassava call and put options traded on the Chicago Board Options Exchange ("CBOE").

## **V. SUMMARY OF PLAINTIFFS' ALLEGATIONS**

43. Plaintiffs allege in this case that Defendants engaged in a fraudulent scheme, including through a series of materially false and misleading statements and omissions during the Class Period, which caused Cassava's stock price to trade at artificial levels. Plaintiffs allege that the stock price ultimately fell as the truth that was previously concealed by the misrepresentations and omissions was revealed.
44. Specifically, Plaintiffs allege that the Company misled investors about its only development-stage therapy, simufilam, by among other things failing to disclose data manipulation and anomalies and conflicts of interest.

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<sup>32</sup> Apparent slight mathematical discrepancy is due to rounding.



45. On the first day of the Class Period, 14 September 2020, the Company announced the “final results” of the previously reported Phase 2b clinical study for simufilam. As part of its announcement, Cassava informed the market that all the Phase 2b samples from the study results announced on 15 May 2020 were sent to another laboratory for an additional bioanalysis to remeasure the biomarkers. Cassava’s reasoning was due to questionable validity of the initial Phase 2b results.<sup>33</sup> According to the Company, the initial result “serves no useful purpose.”<sup>34</sup> After the second laboratory’s analysis, the Phase 2b clinical studies indicated that simufilam “significantly improved an entire panel of validated biomarkers” of patients afflicted with Alzheimer’s disease.<sup>35</sup> Unbeknownst to market participants, the laboratory that retested the Phase 2b samples was allegedly operated and managed by Doctor Hoau-Yan Wang (“Dr. Wang”), one of simufilam’s creators and paid Cassava consultant.<sup>36</sup>
46. Plaintiffs allege that Defendants thereafter made additional misrepresentations and omissions related to the development of simufilam. In February 2021, Cassava released additional results from another trial that indicated simufilam’s potentially positive effects on Alzheimer’s patients.<sup>37</sup> About five months later, on 26 July 2021, the Company published and presented a poster at the Alzheimer’s Association International Conference (“AAIC”) that contained manipulated scientific results. Specifically, Plaintiffs allege that key plasma biomarker data shown in the poster was removed.<sup>38</sup>
47. Plaintiffs allege that the truth about the Company’s research, analysis, and clinical trials began to emerge in August 2021.<sup>39</sup> On 18 August 2021, a Citizen Petition was submitted by two doctors to the FDA that raised concerns regarding the “quality and integrity of the

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<sup>33</sup> MTD Order, p. 5.

<sup>34</sup> Complaint, ¶271.

<sup>35</sup> “Cassava Sciences Announces Final Results of a Phase 2b Clinical Study of Sumifilam in Patients with Alzheimer’s Disease,” *GlobeNewswire*, Company press release, 14 September 2020.

<sup>36</sup> MTD Order, p. 5.

<sup>37</sup> “Cassava Sciences Announces Positive End-of-Phase 2 Meeting with FDA and Outlines Pivotal Phase 3 Program for Simufilam in Alzheimer’s Disease,” *GlobeNewswire*, Company press release, 22 February 2021 8:30AM.

<sup>38</sup> Complaint, ¶¶312-314.

<sup>39</sup> Complaint, ¶316.



laboratory-based studies” involving simufilam.<sup>40</sup> The Citizen Petition noted that the peer-reviewed journal articles had the same two authors, Dr. Wang, and Dr. Lindsay Burns, Cassava’s Senior Vice President of Neuroscience (“Defendant Burns”).<sup>41</sup> The three primary concerns of the Citizen Petition were:

“First, the underlying papers of Drs. Wang and Burns involve extensive use of Western blot analysis to support their claims connecting Simufilam to Alzheimer’s. Detailed analysis of the western blots in the published journal articles shows a series of anomalies that are strongly suggestive of systematic data manipulation and misrepresentation.”

“Second, Cassava’s presentation of clinical biomarker data from that Phase 2b trial raises questions about the validity of the data. The CSF samples in this study were first analyzed by an outside lab, which found that Simufilam was ineffective in improving the primary biomarkers end point and high variability in other biomarkers. But Cassava had these samples analyzed again and this time reported that Simufilam rapidly and robustly improved a wide array of biomarkers. Cassava has not fully published the data from this reanalysis, but a presentation posted that it published on July 26, 2021, which appears to describe aspects of that work, shows signs of data anomalies or manipulation.”

“Third, some of the foundational studies published by Drs. Wang and Burns make claims about Simufilam’s effects in experiments conducted on postmortem human brain tissue. The methodology allegedly used in these experiments defied logic, and the data presented again have hallmarks of manipulation.”

**Complaint, ¶107 (internal emphasis removed).**

48. On 25 August 2021, before the stock market open, the Company issued a press statement rebuking the Citizen Petition, calling it “false and misleading.”<sup>42</sup> As part of this communication to the market, the Company provided a list of “facts” and “fiction” among

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<sup>40</sup> “Statement of Concern Regarding the Accuracy and Integrity of Clinical and Preclinical Data Supporting the Ongoing Clinical Evaluation of Compound PTI-125, Also Known As Simufilam,” Labaton Sucharow LLP, 18 August 2021, p. 1.

<sup>41</sup> “Statement of Concern Regarding the Accuracy and Integrity of Clinical and Preclinical Data Supporting the Ongoing Clinical Evaluation of Compound PTI-125, Also Known As Simufilam,” Labaton Sucharow LLP, 18 August 2021, p. 2.

<sup>42</sup> “Cassava Sciences Responds to Allegations,” *GlobeNewswire*, Company press release, 25 August 2021 6:00AM.

which was Cassava's assertion that an independent company, Quanterix Corporation ("Quanterix"), generated the data presented at AAIC.<sup>43</sup>

"Fiction: Biomarker data is generated by Cassava Sciences or its science collaborators and therefore are falsified.

Fact: Cassava Sciences' plasma p-tau data from Alzheimer's patients was generated by Quanterix Corp., an independent company, and presented at the recent *Alzheimer's Association International Conference*."

"Cassava Sciences Responds to Allegations," *GlobeNewswire*, Company press release, 25 August 2021 6:00AM (emphasis in original) (internal footnotes omitted).

49. Shortly thereafter, on 27 August 2021, Quanterix released a corrective statement detailing its responsibilities vis-à-vis the Phase 2b simufilam study. This statement differed from the Company's 25 August 2021 representation, by explicitly stating that Quanterix did not interpret or prepare the data in Cassava's AAIC poster.<sup>44</sup> Cassava responded on the same day, confirming Quanterix's statement.<sup>45</sup>
50. Throughout the remainder of the Class Period, supplemental submissions to the original Citizen Petition were filed, and Cassava's denial of the denial of the allegations remained steadfast. On 30 August 2021, a supplement to the Citizen Petition identified additional examples of apparent scientific misconduct by Cassava and Dr. Wang. On 3 September 2021, the Company admitted that some contents of the Citizen Petition and its supplement were true:

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<sup>43</sup> "Cassava Sciences Responds to Allegations," *GlobeNewswire*, Company press release, 25 August 2021 6:00AM.

<sup>44</sup> "Press Release: Quanterix Releases Statement," *Dow Jones Institutional News*, 27 August 2021 8:19AM.

<sup>45</sup> "Cassava Sciences Releases Statement Regarding Plasma p-tau Analysis from a Previously Disclosed Phase 2b Clinical Study in Alzheimer's Patients," *GlobeNewswire*, Company press release, 27 August 2021 11:31AM.

“Let me also say that we are humans, and we do make honest mistakes from time to time. We have no shame in owning what we create. Folks on the internet have pointed out two errors. These are not material errors. There may be more to come, I just don’t know given that our Alzheimer’s program spans about 15 years of research, but right now I am specifically aware of visual errors in one publication and one poster presentation. Let me be clear: these are only visual errors. They should have been caught in proofing but were not. In all cases, the data analysis is correct; the visual display of the data is not correct. It’s worth repeating: the data analysis is correct; the visual display of the data is not correct.”

**“Public Statement Regarding Recent Allegations Against Cassava Sciences, Inc.,”** Cassava Sciences, Inc., 3 September 2021 7:00AM, accessible at <https://www.cassavasciences.com/static-files/d4083c4d-b4ad-4e27-a93d-edaeff13b608>.

51. The media, and industry and regulatory organizations looked into Cassava, specifically its research and the simufilam clinical studies. The Company disclosed in its Form 10-Q filed on 15 November 2021 that certain “government agencies have asked us to provide them with corporate information and documents. We have been cooperating and will continue to cooperate with government authorities. No government agency has informed us that any wrongdoing has occurred by any party.”<sup>46</sup>
52. It was then reported that in addition to requesting information and data from the Company, some governmental agencies were investigating claims of research manipulation. *The Wall Street Journal* reported that the SEC and National Institute of Health were investigating research manipulation claims, and that the City University of New York (“CUNY”) had opened an investigation into Dr. Wang. Peer-reviewed journals retracted papers authored by Dr. Wang and Defendant Burns.<sup>47</sup>
53. Plaintiffs allege that more of the previously concealed truth was further revealed when *The New York Times* reported on 18 April 2022, after the market close, that there was a growing scientific community consensus that the Company’s research was suspect. *The New York Times* reported that it had “contacted nine prominent experts for comment about the

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<sup>46</sup> Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 September 2021, filed 15 November 2021, p. 34.

<sup>47</sup> “SEC Investigating Cassava Sciences, Developer of Experimental Alzheimer’s Drug,” by Dave Michaels and Joseph Walker, *Dow Jones Institutional News (Wall Street Journal)*, 17 November 2021 9:00AM; and Complaint, ¶367.

scientific underpinnings of Cassava’s trials. All said they did not trust the Company’s methods, results or even the premise underlying the drug’s supposed effectiveness.”<sup>48</sup>

54. Later, more of the truth emerged when *Reuters* reported on 27 July 2022 that the U.S. Department of Justice (“DOJ”) was opening a criminal investigation into the Company.<sup>49</sup> The Company confirmed on this day that it was made aware of the DOJ’s criminal investigation on 15 November 2021, the day it first disclosed that government agencies were requesting data and research from Cassava.<sup>50</sup>
55. On 12 October 2023 after the market close, *Science Magazine* reported that the CUNY’s investigation into Dr. Wang resulted in accusations of “scientific misconduct involving 20 research papers.”<sup>51</sup> These research papers, according to the investigation, “provided key support for simufilam’s jump from the lab into clinical studies ... .”<sup>52</sup>
56. Plaintiffs allege that Cassava’s misrepresenting its research on simufilam, artificially inflated the Company’s stock price, which among other things, allowed the Company to raise millions of dollars in equity financing and allowed Defendants to qualify for cash bonuses. Plaintiffs further allege that when the truth correcting the misrepresentations and omissions emerged, the artificial inflation dissipated and the stock price fell, thusly causing investors losses.

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<sup>48</sup> “Scientists Question Data Behind an Experimental Alzheimer’s Drug,” by Apoorva Mandavilli, *The New York Times*, 18 April 2022.

<sup>49</sup> “Reuters US Domestic News Summary,” *Reuters*, 27 July 2022 8:57AM.

<sup>50</sup> “Cassava Sciences Responds to Media Reports,” *GlobeNewswire*, Company press release, 27 July 2022 1:36PM.

<sup>51</sup> “Co-developer of Cassava’s Potential Alzheimer’s Drug Cited for ‘Egregious Misconduct,’” by Charles Piller, *Science Magazine*, vol. 382, issue 6668, accessible at <https://www.science.org/content/article/co-developer-cassava-s-potential-alzheimer-s-drug-cited-egregious-misconduct>.

<sup>52</sup> “Co-developer of Cassava’s Potential Alzheimer’s Drug Cited for ‘Egregious Misconduct,’” by Charles Piller, *Science Magazine*, vol. 382, issue 6668, accessible at <https://www.science.org/content/article/co-developer-cassava-s-potential-alzheimer-s-drug-cited-egregious-misconduct>.

## VI. MARKET EFFICIENCY DEFINITION AND ASSESSMENT METHODOLOGY

### A. Efficient Market Defined

57. The definition of market efficiency set forth by Judge Alfred J. Lechner, Jr. in the seminal 1989 *Cammer v. Bloom* decision is often cited as a legal authority on the meaning of market efficiency and is consistent with the definition of informational efficiency generally accepted by the academic finance community:

“As relevant here, courts have permitted a rebuttable presumption of reliance in the case of securities traded in ‘efficient markets’ (i.e., markets which are so active and followed that material information disclosed by a company is expected to be reflected in the stock price).”  
*Cammer*, 711 F. Supp. at 1273.

58. Simply put, market efficiency means that material public information is not ignored by the market, but rather is considered by market participants, and is incorporated and reflected in the trading prices of securities with reasonable promptness.
59. In the *Cammer* case, Judge Lechner cited definitions offered by commentators Alan Bromberg and Lewis Lowenfels and by renowned financial economist and Nobel Laureate Eugene Fama (“Professor Fama”):

“An efficient market is one which rapidly reflects new information in price.”  
*Cammer*, 711 F. Supp. at 1276, n.17 (citing Bromberg & Lowenfels, 4 *Securities Fraud and Commodities Fraud*, § 8.6 (Aug.1988); see also Bromberg and Lowenfels on *Securities Fraud*, vol. 5, chapter 7 (titled “Private Actions”), Thomson Reuters (2<sup>nd</sup> Edition 2013), at § 7:484.

“A market in which prices always ‘fully reflect’ available information is called ‘efficient.’”  
*Cammer*, 711 F. Supp. at 1280, citing “Efficient Capital Markets: A Review of Theory and Empirical Work,” by Eugene Fama, *The Journal of Finance*, vol. 25, no. 2 (1970).

60. In his 1991 follow-up article titled “Efficient Capital Markets: II,” Professor Fama elaborated, qualifying the definition to conform to economic realities rather than the perfect ideal:

“I take the market efficiency hypothesis to be the simple statement that security prices fully reflect all available information. ... A weaker and economically more sensible version of the efficiency hypothesis says that prices reflect information to the point where the marginal benefits of acting on information (the profits to be made) do not exceed the marginal costs.”  
**“Efficient Capital Markets: II,”** by Eugene Fama, *The Journal of Finance*, vol. 46, no. 5, 1991, p. 1575.

61. Professor Fama and a group of preeminent economists described market efficiency and the state of the profession’s general understanding in an *amici curiae* brief that they submitted in 2014 to the U.S. Supreme Court in the *Halliburton II* case.<sup>53</sup> They explained that it is a widely accepted principle that security prices generally react to and reflect material public information, which is the essence of informational market efficiency. They explained this point, as follows:

“There is widespread debate about market efficiency among economists, and the signatories of this brief include participants with varying positions on that debate. It is critical, however, to be clear about what issues are in dispute – and what issues are not. Economists disagree about whether markets *perfectly* process information and how quickly they do so; about whether prices reflect the fundamental value of the underlying stock; ... and about whether it is possible to ‘beat the market’ by pursuing various investment strategies designed to exploit pricing anomalies. Such disagreements existed when *Basic [Inc. v. Levinson]*, 485 U.S. 224] was decided in 1988, and they exist today. But economists do *not* generally disagree about whether market prices respond to new material information.”  
**Brief of Financial Economists as *Amici Curiae* in Support of Respondents, in *Halliburton Co. v. Erica P. John Fund, Inc.*, Case No. 13-1317 (U.S. Supreme Court) dated 5 February 2014, p. 3 (available at 2014 WL 526436) (emphasis in original).**

62. The U.S. Supreme Court in the 1988 *Basic v. Levinson* decision focused on the same important characteristic at the heart of these definitions of market efficiency – that security prices react to and therefore reflect publicly available material information:

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<sup>53</sup> See, e.g., *Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258 (2014) (“*Halliburton II*”).

“The fraud on the market theory is based on the hypothesis that, in an open and developed securities market, the price of a company’s stock is determined by the available material information regarding the company and its business ... .”  
*Basic, Inc. v. Levinson*, 485 U.S. 224, 241 (1988).

63. The U.S. Supreme Court’s 2013 *Amgen* decision reiterated the definition of market efficiency at the heart of the fraud-on-the-market principle, as follows:

“The fraud-on-the market premise is that the price of a security traded in an efficient market will reflect all publicly available information about a company ... .”  
*Amgen, Inc. v. Connecticut Retirement Plans & Trust Funds*, 568 U.S. 455 (2013).

64. In its 2014 *Halliburton II* decision, the U.S. Supreme Court clarified definitively that the market efficiency relevant to a securities case is the property that the security at issue reacts to and therefore reflects material public information:

“Even the foremost critics of the efficient-capital-markets hypothesis acknowledge that public information generally affects stock prices. ... Debates about the precise *degree* to which stock prices accurately reflect public information are thus largely beside the point. ‘That the ... price [of a stock] may be inaccurate does not detract from the fact that false statements affect it, and cause loss,’ which is ‘all that *Basic* requires.’”  
*Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258, 272 (2014) (emphasis in original; internal citations omitted).

“To recognize the presumption of reliance, the Court explained, was not ‘conclusively to adopt any particular theory of how quickly and completely publicly available information is reflected in market price.’ The Court instead based the presumption on the fairly modest premise that ‘market professionals generally consider most publicly announced material statements about companies, thereby affecting stock market prices.’”  
*Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258, 272-73 (2014) (internal citations omitted).

65. An efficient market, as defined and discussed by *Cammer*, *Basic*, *Amgen*, *Halliburton II*, Alan Bromberg and Lewis Lowenfels, Professor Fama, and other leading scholars, is a market in which publicly available information is incorporated into the price of a security such that the trading price reflects publicly available information with reasonable



promptness. As precedent cases have recognized, market efficiency is relevant to a securities case because it addresses the question of whether false information (*e.g.*, in the form of an alleged misrepresentation or omission) would likely have impacted the prices at which investors bought and sold securities, and upon which investors relied.

66. According to the preeminent economists who authored the *Halliburton II amici curiae* brief and whose views represent the widely accepted understanding in the finance profession, it would be an exception to a generally prevailing rule for a market for a publicly traded security to be informationally inefficient rather than efficient.

## **B. Indicators of Market Efficiency**

### **1. The *Cammer* Factors**

67. The *Cammer* opinion enumerates five factors that indicate whether the market for a security is efficient. As described below, economic rationales support each factor as an indicator of market efficiency. The five factors are 1) trading volume, 2) coverage by securities analysts, 3) number of market makers, 4) eligibility for Form S-3 registration, and 5) empirical evidence that the security price reacts to new, company-specific information.
68. Empirical research has confirmed that trading volume,<sup>54</sup> number of market makers, analyst coverage,<sup>55</sup> and high institutional ownership are indicative of market efficiency:

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<sup>54</sup> See, *e.g.*, “Trading Volume and Cross-Autocorrelations in Stock Returns,” by Tarun Chordia and Bhaskaran Swaminathan, *The Journal of Finance*, vol. 55, no. 2, 2000, p. 913 (“Additional tests indicate that this effect is related to the tendency of high volume stocks to respond rapidly and low volume stocks to respond slowly to marketwide information”).

<sup>55</sup> See, *e.g.*, “Sophisticated Investors and Market Efficiency: Evidence from a Natural Experiment,” by Yong Chen et al., *Journal of Financial Economics*, vol. 138, no. 2, 2020, p. 323 (“Our findings confirm the role of sell-side analysts in providing valuable information to stock market participants and helping facilitate stock market efficiency.”); “The Role and Regulation of the Research Analyst,” by Jill Fisch, Chapter 17 of the *Research Handbook on the Economics of Corporate Law*, edited by Claire Hill and Brett McDonnell, Edward Elgar, 2012, pp. 315 and 317 (“The role of the research analyst (also known as an equity analyst or a securities analyst) is to provide information to the marketplace. Analysts enhance capital market efficiency by enabling stock prices to reflect information and by reducing the need for each investor individually to gather and analyze that information. ... Research analysts collect information about specific firms and the overall market. They then package that information for use by investors in trading decisions.”); and “Investment Analysis and the Adjustment of Stock Prices to Common Information,” by Michael Brennan et al., *The Review of Financial Studies*, vol. 6, no. 4, 1993, p. 800 (“Recent theory suggests that the number of analysts may have an effect on the speed of adjustment to new information. For instance, Holden and Subrahmanyam (1992) and Foster and Viswanathan (1993), in important extensions to the classic model of Kyle (1985), have shown that as the number of informed investors increases, the share price will reflect new information more rapidly; this would suggest an association between the number of analysts and the speed of adjustment, if the number of analysts can be regarded as a proxy for the number of informed investors”).



“Consistent with the efficiency indicators used recently by the courts, the inefficient firms have lower mean trading volume, fewer market makers, lower analyst following, and lower institutional ownership (number and percentage) than efficient firms.”

**“The Fraud-on-the-Market Theory and the Indicators of Common Stocks’ Efficiency,”** by Brad Barber et al., *The Journal of Corporation Law*, 1994, p. 302.

69. Published peer-reviewed research that I conducted (with Miguel Villanueva, Ph.D.) found that the *Cammer* factors are generally dispositive indicators of stock price reactivity to information and therefore informational market efficiency. We explained that:

“Our findings that the *Cammer/Krogman* factors are generally dispositive of reactivity supports the widespread use by courts of the *Cammer/Krogman* factors as indicia of market efficiency.”

**“Stock Price Reactivity to Earnings Announcements: The Role of the *Cammer/Krogman* Factors,”** by Miguel Villanueva and Steven Feinstein, *Review of Quantitative Finance and Accounting*, vol. 57, no. 1, 2021, p. 233.

70. Consistent with financial economic theory and empirical research, the language used by the *Cammer* court describes the factors not as a checklist of five necessary factors, but rather as individual pieces of evidence that are each probative of the degree to which the market for a security is expected to be efficient:

“There are several different characteristics pertaining to the markets for individual stocks which are probative of the degree to which the purchase price of a stock should reflect material company disclosures.”  
*Cammer*, 711 F. Supp. at 1283.

71. The *Cammer* opinion describes the nature of the five factors as follows:

“There are several types of facts which, if alleged, might give rise to an inference that Coated Sales [stock] traded in an efficient market. It is useful to set forth an explanation of how the existence of such facts would cause the understanding that disclosed company information (or misinformation) would be reflected in the company’s stock price, the underpinning of the fraud on the market theory. *Peil, supra*, 806 F.2d at 1160.”  
*Id.* at 1285-86 (footnote omitted).

“First, plaintiffs could have alleged there existed an average weekly trading volume during the class period in excess of a certain number of shares. *Abell v. Potomac Ins. Co.*, 858 F.2d 1104, 1121 (5th Cir. 1988).”  
*Id.* at 1286 (footnote omitted).

“Second, it would be persuasive to allege a significant number of securities analysts followed and reported on a company’s stock during the class period.”  
*Id.*

“Third, it could be alleged the stock had numerous market makers.”  
*Id.*

“Fourth, as discussed, it would be helpful to allege the company was entitled to file an S-3 Registration Statement in connection with public offerings ....”  
*Id.* at 1287.

“Finally, it would be helpful to a plaintiff seeking to allege an efficient market to allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price.”  
*Id.*

“As previously noted, one of the most convincing ways to demonstrate efficiency would be to illustrate, over time, a cause and effect relationship between company disclosures and resulting movements in stock price.”  
*Id.* at 1291.

## **2. The Krogman Factors**

72. In addition to the five *Cammer* factors that indicate market efficiency, numerous courts consider three additional factors recognized by the Fifth Circuit Court of Appeals in *Unger v. Amedisys, Inc.*, 401 F.3d 316 (5th Cir. 2005), and the district court in *Krogman*, to be indicative of market efficiency. These additional factors, the *Krogman* factors, are 1) the company’s market capitalization, 2) the stock’s float, and 3) the typical bid-ask spread.
73. Market capitalization is the total value of all outstanding shares. It equals the number of shares outstanding multiplied by the market price per share. Typically, the larger is a company’s market capitalization, the more prominent and well-known the company is.

- Larger companies tend to attract more analysts and news media coverage and gain the attention of greater numbers of investors, including large institutional investors. All these characteristics, which accompany a large market capitalization, promote market efficiency.
74. A stock's float is the number of shares outstanding less shares held by insiders and affiliated corporate entities. It is the number of shares available for trading by outside investors in the open market. Float is closely related to market capitalization but focuses on the shares available for trading rather than all outstanding shares. Stocks with large float tend to trade more actively, attract more analyst and news media coverage, and garner the attention of a greater number of investors, including large institutional investors. All these characteristics, which occur when a company has high float, promote market efficiency.
  75. The bid-ask spread is the difference between the price at which market makers are offering to buy a security and the price at which they are offering the security for sale. If a security is actively traded and information about the security is readily available, the bid-ask spread tends to be narrow. A narrow bid-ask spread makes trading in the security less costly for investors and thereby tends to attract greater interest, greater coverage, and greater volume, all of which, in turn, promote market efficiency.<sup>56</sup>
  76. Villanueva and Feinstein [2021] empirically examined and evaluated the market capitalization and bid-ask spread *Krogerman* factors and found them to be generally dispositive indicators of stock price reactivity and therefore, informational market efficiency.<sup>57</sup>

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<sup>56</sup> See, e.g., "The Cost of Transacting," by Harold Demsetz, *The Quarterly Journal of Economics*, vol. 82, no. 1, 1968, pp. 33-53; "Bid-Ask Spreads and Trading Activity in the S&P 100 Index Options Market," by Thomas George and Francis Longstaff, *Journal of Financial and Quantitative Analysis*, vol. 28, no. 3, 1993, pp. 381-397; and "Liquidity and Market Efficiency," by Tarun Chordia et al., *Journal of Financial Economics*, vol. 87, 2008, pp. 249-268.

<sup>57</sup> "Stock Price Reactivity to Earnings Announcements: The Role of the *Cammer/Krogerman* Factors," by Miguel Villanueva and Steven Feinstein, *Review of Quantitative Finance and Accounting*, vol. 57, no. 1, 2021, pp. 203-234.

## VII. ANALYSIS OF EFFICIENCY OF THE MARKET FOR CASSAVA STOCK

77. To assess whether the market for Cassava stock was efficient during the Class Period, I analyzed the market for, and behavior of, Cassava stock, focusing on the *Cammer* and *Krogman* factors over the course of the Class Period.

### A. Trading Volume (*Cammer* Factor 1)

78. Throughout the Class Period, Cassava stock traded regularly and actively. On average, 3.44 million shares changed hands daily.<sup>58</sup> The total number of shares traded during the Class Period was 2.67 billion.<sup>59</sup> Cassava stock trading volume data are presented in Exhibit-4.

79. In addition to average daily and total trading volume, another informative volume metric to consider in assessing market efficiency is the percentage of outstanding shares that turn over each week. In the case of the common stock of Coated Sales, Inc. – the security at issue in the *Cammer* case – the *Cammer* court cited the conclusion of Alan Bromberg and Lewis Lowenfels that “average weekly trading of 2% or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one.”<sup>60</sup>

80. During the Class Period, the average weekly trading volume of Cassava stock was 17.18 million shares, or 48.99% of shares outstanding.<sup>61</sup> Thus, the trading volume for Cassava stock during the Class Period was well above the threshold for a strong presumption of market efficiency.<sup>62</sup>

81. In terms of total Class Period volume, average daily trading volume, and the percentage of outstanding shares traded weekly, the market for Cassava stock was extremely active. Consistent with the *Cammer* opinion, economic theory, and published empirical research,

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<sup>58</sup> Data obtained from CRSP.

<sup>59</sup> Data obtained from CRSP.

<sup>60</sup> *Cammer*, 711 F. Supp. at 1293 (citing Bromberg & Lowenfels, 4 *Securities Fraud* (1988), *supra*, at § 8.6).

<sup>61</sup> Estimated by averaging the daily ratio of the trading volume to the number of shares outstanding and multiplying by five (the number of trading days in a typical week).

<sup>62</sup> *Cammer*, 711 F. Supp. at 1286 (“The reason the existence of an actively traded market, as evidenced by a large weekly volume of stock trades, suggests there is an efficient market is because it implies significant investor interest in the company. Such interest, in turn, implies a likelihood that many investors are executing trades on the basis of newly available or disseminated corporate information”).

the active trading volume in Cassava stock is strong evidence that the market for Cassava stock was an efficient market during the Class Period.

**B. Analyst Coverage and Other Avenues of Information Dissemination  
(*Cammer* Factor 2)**

**1. Analyst Coverage**

82. Securities analysts interpret and disseminate information about the companies they cover. They conduct research and provide valuation opinions, which help market participants acquire relevant information and understand the implications of that information for valuation and investment decisions. Consequently, securities analysts facilitate the flow of information and the digestion of information within the marketplace. The presence of analysts, and their function within the marketplace, promote efficiency.
83. Barber et al. [1994] found that coverage by one or two analysts strengthened the presumption of efficiency for a publicly traded stock.<sup>63</sup>
84. I obtained analyst reports about Cassava published during the Class Period by five different analyst firms: Cantor Fitzgerald, H.C. Wainwright, Jones Research, Maxim Group, and Univest Securities.
85. According to *Refinitiv Eikon* at least one other analyst firm, B. Riley Financial, followed the Company and published analyst reports.<sup>64</sup> In addition, there were at least five different analysts that contributed to the consensus estimates for Cassava during the Class Period.<sup>65</sup>
86. Coverage by six analyst firms is broad analyst coverage. Cassava's analyst coverage was more extensive than the coverage by one or two analysts that Barber et al. [1994] found strengthened the presumption of efficiency for a publicly traded stock.
87. Consistent with the *Cammer* opinion, financial economic principles, and published empirical research, the coverage of Cassava by professional securities analysts is

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<sup>63</sup> "The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency," by Brad Barber et al., *The Journal of Corporation Law*, 1994, pp. 310-311.

<sup>64</sup> *Refinitiv Eikon*.

<sup>65</sup> *Refinitiv Eikon*.

compelling evidence that the market for Cassava stock was an efficient market throughout the Class Period.

## 2. Institutional Ownership and Buy-Side Analysis

88. According to published empirical research, high institutional ownership of a security promotes market efficiency.<sup>66</sup> Large investment firms bring their expertise and sophistication to the marketplace. Large institutional investors often employ financial analysts who conduct their own research on the securities they buy, thereby expanding analyst coverage.
89. *Refinitiv Eikon* compiles and provides institutional ownership data drawn from SEC Form 13-F filings. Those filings and data show the holdings of Cassava stock by major investment institutions as of the end of each calendar quarter. Major institutions are defined as firms or individuals that exercise investment discretion over the assets of others in excess of \$100 million. According to SEC filings compiled and reported by *Refinitiv Eikon*, at least 443 major institutions owned Cassava stock during the Class Period.<sup>67</sup> This widespread institutional ownership further supports a conclusion that the market for Cassava stock traded in an efficient market during the Class Period.<sup>68</sup>

## 3. News Coverage, Filings, and Conference Calls

90. The news media also facilitate the flow of information to the marketplace, thereby promoting market efficiency. In the case of Cassava, news media coverage was extensive.

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<sup>66</sup> See, e.g., “The Fraud-on-the-Market Theory and the Indicators of Common Stocks’ Efficiency,” by Brad Barber et al., *The Journal of Corporation Law*, 1994, p. 292; and “Sophisticated Investors and Market Efficiency: Evidence from a Natural Experiment,” by Yong Chen et al., *Journal of Financial Economics*, vol. 138, no. 2, 2020.

<sup>67</sup> According to the data compiled and reported by *Refinitiv Eikon*, 443 institutions held shares of Cassava stock on at least one of the following quarterly reporting dates during the Class Period: 30 September 2020, 31 December 2020, 31 March 2021, 30 June 2021, 30 September 2021, 31 December 2021, 31 March 2022, 30 June 2022, 30 September 2022, 31 December 2022, 31 March 2023, 30 June 2023, and 30 September 2023. There may have been additional institutions that held Cassava stock during the Class Period, though not on those quarterly reporting dates.

<sup>68</sup> See, e.g., “The Fraud-on-the-Market Theory and the Indicators of Common Stocks’ Efficiency,” by Brad Barber et al., *The Journal of Corporation Law*, 1994; and “Sophisticated Investors and Market Efficiency: Evidence from a Natural Experiment,” by Yong Chen et al., *Journal of Financial Economics*, vol. 138, no. 2, 2020.

91. My search of the *Factiva* database found 1,440 articles published about the Company during the Class Period.<sup>69</sup> The articles I obtained from *Factiva* include published news articles and press releases.
92. Information about Cassava was also disseminated in the form of SEC filings and during conference calls, corporate conference presentations, and announcements on the Company's website.
93. Therefore, throughout the Class Period, substantial attention was paid to Cassava by market participants, and information about Cassava was readily available to market participants through the news media, analyst reports, Company financial reports, Company statements, and various other sources. This attention, news coverage, and provision of information is further compelling evidence of the efficiency of the market for Cassava stock throughout the Class Period.

**C. Listing on the Nasdaq, Number of Market Makers, and Presence of Arbitrageurs (*Cammer* Factor 3)**

94. The market-making infrastructure for a stock, including the number of market makers, is the third factor that the *Cammer* court determined may indicate market efficiency. Market makers are financial intermediaries who trade in a particular security, standing ready to buy and sell with individual investors, institutions, and other market makers. A large number of market makers implies that many market participants are trading that particular stock. A large number of market makers for a particular stock provides a high degree of liquidity and lowers transaction costs. With a large number of market makers, it is generally easy for investors to execute trades in a timely fashion and with reasonable transaction costs. These features preclude certain potential impediments to trading and conveyance of information, and therefore promote and indicate market efficiency.
95. That Cassava stock traded on the Nasdaq exchange throughout the Class Period is a compelling indicator that it traded in an efficient market. The Nasdaq is an electronic exchange consisting of multiple competing market makers using electronic systems to make quotes and effect trades. The subject company in the *Cammer* case, Coated Sales,

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<sup>69</sup> This figure is based on a Factiva search in "All Sources" for articles published during the Class Period where "Cassava Sciences, Inc." was the "Company" search field parameter.

Inc., was listed on the Nasdaq. In fact, citing Alan Bromberg and Lewis Lowenfels, the *Cammer* court noted specifically the importance of a Nasdaq listing and the implications of such a listing for market efficiency, stating that market efficiency can reasonably be presumed for virtually all securities traded on the Nasdaq:

“We think that, at a minimum, there should be a presumption – probably conditional for class determination – that certain markets are developed and efficient for virtually all the securities traded there: the New York and American Stock Exchanges, the Chicago Board Options Exchange and the NASDAQ National Market System.”  
*Cammer*, 711 F. Supp. at 1292 (quoting Bromberg and Lowenfels, 4 *Securities Fraud* [1988], at §8.6).

96. *Bloomberg* identifies the firms that were market makers for Cassava stock during the Class Period. According to *Bloomberg*, there were 122 market makers active in Cassava stock between October 2020 and September 2023. These market makers included such well-known firms as Bank of America, Barclays, Credit Suisse, Goldman Sachs, Morgan Stanley, and UBS.<sup>70</sup>
97. Cassava stock satisfied the market infrastructure *Cammer* factor two ways. First, Cassava stock was listed on the Nasdaq. Second, there were many market makers that facilitated the trading in Cassava stock during the Class Period.
98. The *Cammer* court cited the presence of arbitrageurs along with market makers as an indicator of market efficiency.<sup>71</sup> Arbitrageurs are traders who attempt to profit from any immediate mispricing of a security. Their trading quickly drives out mispricings.<sup>72</sup>
99. There are no publicly available data on the identities or specific activities of arbitrageurs in particular securities, but reasonable proxies do exist. Arbitrage opportunities tend to be short-lived, and because quickness matters and profit margins are small, arbitrage activity tends to be undertaken by large, well-capitalized, sophisticated institutions.<sup>73</sup> Consequently, the number of major institutions who held Cassava stock and the number of

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<sup>70</sup> *Bloomberg*.

<sup>71</sup> *Cammer*, 711 F. Supp. at 1286-1287.

<sup>72</sup> See, e.g., *Investments*, by Zvi Bodie et al., 12<sup>th</sup> Edition, McGraw-Hill Education, 2021, p. 311.

<sup>73</sup> See, e.g., *Corporate Finance: Core Principles & Applications*, by Stephen Ross et al., 2<sup>nd</sup> Edition, McGraw-Hill/Irwin, 2009, p. 399.



institutions whose holdings changed during the Class Period provide a gauge of arbitrage activity in the market for Cassava stock. Similarly, an active market for short-selling and an active market for derivative securities tied to Cassava stock, such as call options and put options, also indicate likely arbitrage activity.

100. All of these elements reveal the likely presence of arbitrageurs in the market for Cassava stock. According to the institutional holdings data obtained from *Refinitiv Eikon*, all of the 443 institutions that held shares of Cassava stock during the Class Period reported a change in the number of shares held during the Class Period. Quarterly institutional holding figures are shown in Exhibit-5. These data show that as a group, major institutions were active investors and adjusted their positions – a marker of arbitrage activity.
101. Furthermore, as shown in Exhibit-6, which presents Cassava stock short interest data provided by *Bloomberg*, there was considerable Cassava stock short-selling activity over the course of the Class Period. This short-selling activity evinces the presence of likely arbitrage activity. Additionally, during the Class Period, there was an active market for Cassava options, another marker of likely arbitrage activity.<sup>74</sup> That Cassava stock traded on the Nasdaq, with numerous market makers and with the likely participation of arbitrageurs, compels the conclusion that the well-developed market for Cassava stock was an efficient market throughout the Class Period.

#### **D. Form S-3 Registration Eligibility (*Cammer* Factor 4)**

102. Form S-3 registration is a simplified form which publicly traded U.S. companies can use to register securities with the SEC for a security offering to raise capital. Also known as “short-form” registration, Form S-3 registration is simpler and more expedited as compared to a regular Form S-1 registration. However, to be eligible for Form S-3 registration, companies must satisfy certain requirements pertaining to size and report filing history.

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<sup>74</sup> See, e.g., “Notable Tuesday Option Activity: SAVA, NWBI, MTCH,” *BNK Invest Inc.*, 2 February 2021 3:28PM accessible at <https://www.nasdaq.com/articles/notable-tuesday-option-activity%3A-sava-nwbi-mtch-2021-02-02>; “Notable Wednesday Option Activity: IGT, PLUG, SAVA,” *BNK Invest Inc.*, 17 March 2021 3:33PM accessible at <https://www.nasdaq.com/articles/notable-wednesday-option-activity%3A-igt-plug-sava-2021-03-17>; “Notable Monday Option Activity: OMF, SAVA, WSC,” *BNK Invest Inc.*, 9 January 2023 3:30PM accessible at <https://www.nasdaq.com/articles/notable-monday-option-activity%3A-omf-sava-wsc>; and “Noteworthy Friday Option Activity: GM, ATGE, SAVA,” *BNK Invest Inc.*, 29 September 2023 3:26PM accessible at <https://www.nasdaq.com/articles/noteworthy-friday-option-activity%3A-gm-atge-sava>.

The *Cammer* court explained that the criteria for Form S-3 registration eligibility are such that Form S-3 registration eligibility indicates market efficiency.<sup>75</sup>

103. At the time of the *Cammer* opinion, the conditions for Form S-3 registration were that a company had filed financial reports with the SEC for 36 months and had an outstanding float over \$150 million held by non-affiliates, or \$100 million of such float coupled with annual trading volume exceeding 3 million shares.<sup>76</sup>
104. In 1992, the SEC revised its Form S-3 registration eligibility requirements to 12 months of filings and at least \$75 million of float. Since 2007, the SEC has allowed companies with less than \$75 million of float to file a Form S-3 registration as long as the company has been filing financial reports for at least a year, has “a class of common equity securities listed and registered on a national securities exchange, and the issuers do not sell more than the equivalent of one-third of their public float in primary offerings over any period of 12 calendar months.”<sup>77</sup>
105. The *Cammer* court observed that Form S-3 registration eligibility is indicative of market efficiency because the filing requirement ensures that financial data are available to market participants, and the public float requirement indicates that many market participants would have examined the information. The *Cammer* court explained, as follows:

“Proposed Form S-3 recognizes the applicability of the efficient market theory to the registration statement framework with respect to those registrants which usually provide high quality corporate reports, including Exchange Act reports, and whose corporate information is broadly disseminated, because such companies are widely followed by professional analysts and investors in the market place. ... Because of the foregoing observations made by the SEC, the existence of Form S-3 status is an important factor weighing in favor of a finding that a market is efficient.”  
***Cammer*, 711 F. Supp. at 1284-85.**

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<sup>75</sup> *Cammer*, 711 F. Supp. at 1284-1285.

<sup>76</sup> “Revisions to the Eligibility Requirements for Primary Securities Offerings on Forms S-3 and F-3,” SEC Release No. 33-8812, 20 June 2007.

<sup>77</sup> “Revisions to the Eligibility Requirements for Primary Securities Offerings on Forms S-3 and F-3,” SEC Release No. 33-8878, 19 December 2007.

“The ‘public float’ aspect of the Form S-3 requirements ensures that enough investors have in fact read the previously filed document.”  
*Id.* at 1285.

106. Cassava regularly and timely filed required SEC financial reports.<sup>78</sup> Also, Cassava’s average float during the Class Period of \$1.30 billion far exceeded the \$75 million float size required for Form S-3 registration. Cassava’s float exceeded the minimum float requirement throughout the entire Class Period.
107. Satisfying all requisite conditions, not only was Cassava eligible for Form S-3 registration throughout the Class Period, but the Company did, in fact, file two Form S-3ASR registration statements (a Form S-3 registration statement available to “seasoned” issuers) with the SEC on 10 February 2021 and 1 May 2023. Even just prior to the Class Period’s beginning, on 9 April 2020, Cassava filed a Form S-3.<sup>79</sup>
108. Cassava’s eligibility for Form S-3 registration, and its experience actually undertaking such filings before and during the Class Period, are compelling evidence of the efficiency of the market for Cassava stock throughout the Class Period.

#### **E. *Krogman* Factors**

109. In addition to evaluating market efficiency based on the *Cammer* factors, I also examined Cassava stock and its market with respect to the three *Krogman* factors.

##### **1. Market Capitalization (*Krogman* Factor 1)**

110. Cassava was not a small, obscure company, which escaped the notice of market participants. Rather, Cassava was a large, visible, and well-covered company.
111. Over the course of the Class Period, the market capitalization of Cassava stock ranged between \$173.68 million and \$5.41 billion, averaging \$1.43 billion. This average market capitalization was larger than the respective market capitalizations of 71% of all publicly

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<sup>78</sup> See records of Cassava’s filings of Forms 10-K and Forms 10-Q available at [www.sec.gov/edgar](http://www.sec.gov/edgar).

<sup>79</sup> Cassava Sciences, Inc., Form S-3/A, filed 9 April 2020; Cassava Sciences, Inc., Form S-3ASR, filed 10 February 2021; and Cassava Sciences, Inc., Form S-3ASR, filed 1 May 2023.

traded companies in the U.S.<sup>80</sup> At its lowest point during the Class Period, Cassava's market capitalization was still larger than 37% of all other publicly traded companies in the U.S. At its highest point during the Class Period, Cassava's market capitalization was larger than 86% of all other publicly traded companies in the U.S.

112. Consistent with the *Krogman* opinion and the financial economic principles discussed above, the sizeable market capitalization of Cassava stock supports a conclusion that the market for Cassava stock was efficient throughout the Class Period. This evidence is weaker when the market capitalization was at its lowest, but very strong during the vast majority of the Class Period when the market capitalization was much larger.

## 2. Float (*Krogman* Factor 2)

113. Float is closely related to market capitalization but excludes insider and closely held shares. Float is therefore a measure of shares available for trading by the general public. Float can be analyzed in terms of number of shares, dollar value, and as a percentage of total shares outstanding.
114. On average during the Class Period, there were 38.74 million shares outstanding, of which 34.74 million (89.52%) were in float. Over the course of the Class Period, the market value of Cassava's stock float ranged between \$149.08 million and \$4.87 billion, averaging \$1.28 billion. This average float was larger than the entire respective market capitalizations (including shares held by insiders and affiliates) of 69.70% of all other publicly traded companies in the U.S.<sup>81</sup>
115. While insiders did hold a portion of issued Cassava stock, the quantity of Cassava stock not held by insiders was large – an average of 34.74 million shares, representing 89.52%, during the Class Period. Cassava's sizeable float supports a conclusion that the market for Cassava stock was efficient throughout the Class Period. The evidence is weaker when the float was at its lowest, but very strong during the vast majority of the Class Period when the float was much larger.

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<sup>80</sup> Market capitalizations for all other companies were computed as averaged month-end values, using data from CRSP for September 2020 through September 2023.

<sup>81</sup> Market capitalizations for all other companies were computed as averaged month-end values, using data from CRSP for September 2020 through September 2023.

### 3. Bid-Ask Spread (*Krogman Factor 3*)

116. I obtained from CRSP the daily closing bid and ask quotes for Cassava stock during the Class Period. I measured the percentage bid-ask spread as the difference between the bid and ask quotes divided by the average of the bid and ask quotes, which is the standard way of measuring percentage bid-ask spreads in the finance literature.<sup>82</sup> Exhibit-4 presents bid and ask price data for Cassava stock.
117. The average bid-ask spread for Cassava stock over the course of the Class Period was 0.14%. By comparison, the average month-end bid-ask spread over the course of the Class Period for all stocks in the CRSP database, which comprises all stocks traded on U.S. exchanges, was 0.58%.<sup>83</sup> The Cassava stock percent bid-ask spread was therefore substantially narrower than the average.
118. In dollar terms, the Cassava stock bid-ask spread during the Class Period averaged \$0.05 per share. For all stocks in the CRSP database, the average bid-ask spread was \$0.19 per share during the Class Period. Cassava stock's dollar bid-ask spread was substantially narrower than the average level among all stocks traded on U.S. exchanges.
119. The average bid-ask spread in the market for Cassava stock over the course of the Class Period was below the typical bid-ask spreads exhibited by other publicly traded stocks in the U.S., as measured in either percent or dollar terms. This narrow bid-ask spread in the market for Cassava stock supports a conclusion of market efficiency.

### VIII. EMPIRICAL DEMONSTRATION OF MARKET EFFICIENCY FOR CASSAVA STOCK (*Cammer Factor 5*)

120. The fifth *Cammer* factor is empirical evidence showing a cause-and-effect relationship between the release of company-specific information and movements in the stock price.<sup>84</sup>

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<sup>82</sup> "Price Reversals, Bid-Ask Spreads, and Market Efficiency," by Allen Atkins and Edward Dyl, *The Journal of Financial and Quantitative Analysis*, vol. 25, no. 4, 1990, pp. 535-547.

<sup>83</sup> This calculation is based on averaged month-end data from CRSP for September 2020 through September 2023.

<sup>84</sup> *Cammer*, 711 F. Supp. at 1291.

The *Cammer* court noted that a demonstration of a cause-and-effect relationship “would be helpful to a plaintiff seeking to allege an efficient market.”<sup>85</sup>

121. While the *Cammer* court stated that the empirical factor is “helpful” and “convincing,” my understanding is that more recently, consistent with financial principles and published empirical findings, courts have found that the empirical *Cammer* factor is not necessary to establish market efficiency, especially when the other factors are satisfied, and circumstances are not unusual.<sup>86</sup>
122. Nonetheless, significant stock price reactions to new, valuation-relevant information do demonstrate market efficiency and are compelling evidence of market efficiency. The empirical event study analysis that I conducted for Cassava stock provides such evidence.
123. Cassava stock reacted to Company announcements and news. As described next, I conducted empirical event study tests of the efficiency of the market for Cassava stock. These results prove that the Cassava stock price responded to Company-specific information during the Class Period, which is the hallmark of an efficient market. There was indeed a cause-and-effect relationship between the release of new Company information and changes in Cassava’s stock price, which demonstrates market efficiency.

#### **A. Event Studies**

124. Event studies test whether a security responds to new information. Event study analysis is one of the most commonly used analytic methodologies employed by finance researchers to assess the impact of information and events on security prices.
125. Campbell et al. [1997] described and provided examples of the event study methodology and wrote about how this method is generally accepted and widely used in academic research.<sup>87</sup> Gold et al. [2017] described how the methodology is generally accepted and widely used in forensic applications.<sup>88</sup>

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<sup>85</sup> *Id.* at 1287.

<sup>86</sup> See, e.g., *Waggoner v. Barclays PLC*, 875 F.3d 79, 97 (2d Cir. 2017) (“a plaintiff seeking to demonstrate market efficiency need not always present direct evidence of price impact through event studies.”).

<sup>87</sup> “Event-Study Analysis,” by John Campbell et al., Chapter 4 of *The Econometrics of Financial Markets*, Princeton University Press, 1997.

<sup>88</sup> “Federal Securities Acts and Areas of Expert Analysis,” by Kevin Gold et al., Chapter 27 of the *Litigation Services Handbook: The Role of the Financial Expert*, 6<sup>th</sup> Edition, edited by Roman Weil et al., John Wiley & Sons, Inc., 2017.

126. An event study measures how much a security price rises or falls in response to new, company-specific information. One component of an event study is the statistical regression analysis that determines how much of a security price change is explained by market-wide and industry sector factors, rather than company-specific information, so that those influences can be statistically factored out. The portion of a security price change that cannot be attributed to market-wide or sector factors is called the residual security price movement or “residual return.” The event study isolates the residual return and tests whether or not the residual return can reasonably be explained as merely a random fluctuation.
127. If a stock’s event date residual return is statistically significant, it indicates that the stock price movement cannot be attributed to market factors, sector factors, or to random volatility, but rather was caused by new, company-specific information. A significant stock price reaction to the release of information demonstrates market efficiency.

## **B. Collective Event Study Tests**

### **1. Collective Event Study Test Design and Methodology**

128. If a company’s news events collectively exhibit a significantly greater frequency of statistically significant stock price movements than do non- or lesser-news days, this finding establishes that the stock consistently reacts to company-specific information, and it is therefore compelling empirical evidence that the stock trades in an efficient market. One can test for market efficiency, therefore, by assessing collectively whether the stock exhibits statistically significant returns more often on days with greater information flow than on more typical days with less news. If the frequency of statistically significant stock price movements is greater among a collection of news days than among all other non- or lesser-news days, this result would establish that there is a cause-and-effect relationship between the flow of company information and stock price movements, which indicates market efficiency.
129. The group of eight testifying finance experts (including myself) who wrote an *amici curiae* brief for the U.S. Supreme Court in *Halliburton II* recognized collective tests as valid tests of market efficiency. The brief explained that an empirical analysis of market efficiency may be performed as follows:



“[D]ivide the days of the class period *ex ante* into expected news days and non-news days before examining price movements, and then compare the stock’s price movements in the two categories to see if there is a statistically significant difference in price movement between the two categories. If the study finds a difference in price movement between the two sample sets (*e.g.*, earnings-release dates versus non-earnings-release dates), that is statistical evidence that the market incorporates new public information into the price of the stock.”

“Brief of Testifying Economists as *Amici Curiae* in Support of Respondent,” *Halliburton Co. v. Erica P. John Fund, Inc.*, Case No. 13-317 (U.S. Supreme Court) dated 5 February 2014, p. 10 (available at 2014 WL 526436).

## 2. Collective Event Study Tests of Market Efficiency Are Widely Used

130. Collective event study tests that compare price movements on news days to non- or lesser-news days for purposes of assessing market efficiency are widely used in securities cases, are presented in the literature, and have been accepted by courts.
131. The following are excerpts about collective tests from the professional forensic and academic finance literature:

“We start by examining the statistical properties of the cause-and-effect relationship between stock returns and disclosures when there is no link. In other words, the daily stock prices do not reflect full information and that significant abnormal returns are not associated with the disclosure of information. It then logically follows that, for this security we will observe that: (a) the security’s returns are determined arbitrarily or in a random fashion, and (b) there will be no link between disclosures and significant abnormal returns, in other words, disclosures and significant returns are randomly distributed. To test this hypothesis, we have established a novel statistical method employing a generally accepted approach called ‘bootstrap testing.’ Both the *DVI* and *HealthSouth* courts have accepted the bootstrap approach. We have created test statistics to determine if the actual observations are likely to have been generated in a random fashion. If information disclosures are not linked to abnormal returns, then we would not expect there to be a statistically significant relationship that distinguishes those days when there are or are not disclosures of information from those days when there are or are not abnormal returns. In other words, there is no cause-and-effect correlation because the distributions of abnormal returns and disclosures are both random events.”

“The Curious Incident of the Dog That Didn’t Bark and Establishing Cause-and-Effect in Class Action Securities Litigation,” by Michael Hartzmark and H. Nejat Seyhun, *Virginia Law & Business Review*, vol. 6, no. 3, 2012, pp. 458-459 (footnote omitted).



“In terms of the application of the EMH [Efficient Market Hypothesis] to securities class actions, an important question is whether any allegedly fraudulent information would cause a change in the issuer’s stock price. However, because the market does not know (at the time) whether any information it receives is legitimate or fraudulent, this question can be answered by testing whether the market for a particular issuer’s stock responds to news more generally. If it does, then one is more confident that the stock price would be affected by any material false information or would have responded to material omitted information. If the stock price does not generally respond to news, then the presumption should then become that the stock was not affected by any false news and may not have responded to allegedly omitted information. Because stock prices move all the time, one must compare the movements in response to news stories with a control group of prices.”

**“The ‘Less Than’ Efficient Capital Markets Hypothesis: Requiring More Proof from Plaintiffs in Fraud-on-the-Market Cases,”** by Paul Ferrillo et al., *St. John’s Law Review*, vol. 78, no. 1, 2004, p. 119.

“For our application, the Fisher Exact test queries the null hypothesis that the event day incidence of significant returns is less than or equal to the non-event day incidence of significant returns. When a Fisher Exact test *p* value is less than or equal to 5%, one can reject the null hypothesis of non-reactivity in favor of the alternative characterization that the stock is reactive. We run the test per stock-year observation, to determine whether each particular stock in each year displayed reactivity. ... Empirical proof of reactivity demonstrates the cause and effect relationship between information and stock price movements that Courts consider as evidence of market efficiency.”

**“Stock Price Reactivity to Earnings Announcements: The Role of the Cammer/Krogman Factors,”** by Miguel Villanueva and Steven Feinstein, *Review of Quantitative Finance and Accounting*, vol. 57, no. 1, 2021, pp. 215 and 233.

### 3. Selection of Collective Event Study Events

#### *a. News Event Selection Criteria*

132. Collective event study tests of market efficiency often focus on a company’s quarterly earnings announcements because a company’s reported revenue and earnings are generally important metrics used to value the company and its stock. The quarterly earnings announcements are usually when a company first reports achieved and projected revenue and earnings to its investors.
133. However, the finance literature recognizes that for certain companies, analysts and investors focus more on product development milestones rather than financial results. The

literature highlights biopharmaceutical development companies in particular as companies for which recent past and near-term earnings performance is less important to valuation than is news about the longer-term outlook product development success or failure.

“When valuing a growth company, we confront many of the issues we faced with young idea companies, albeit on a lesser scale. Data on past operations provides a short, volatile, and not particularly useful basis for forecasting the future. Much of the company’s value comes from expectations about how high growth will be in the future, how long this growth can be sustained, and the quality of this growth, all of which are difficult to forecast.”

*The Dark Side of Valuation*, by Aswath Damodaran, Pearson Education, 2<sup>nd</sup> Edition, 2010, p. 310.

“Investors’ approach to pharmaceutical stocks further **confirms their focus on economic fundamentals beyond earnings figures**. In the pharmaceutical industry, announcements about products under development can affect share prices far more than quarterly earnings announcements. This makes sense because product and pipeline development are much better indicators of the long-term growth and profitability of pharmaceutical companies than short-term earnings. Markets understand this well, and as Exhibit 16.4 shows, **prices react strongly to pipeline announcements, even though these herald no impact on current earnings**.”

“Markets Value Substance, Not Form,” in *Valuation: Measuring and Managing the Value of Companies*, by Tim Koller et al., 5<sup>th</sup> Edition, McKinsey & Co., 2010, p. 364 (emphasis added).

“In summary, we observe a significant difference in stock responses to news releases between pharmaceutical and biotechnology companies, with biotechnology companies showing a larger magnitude of abnormal returns than pharmaceutical companies. The most influential news categories were also different between the two sectors. Stocks of biotechnology companies were more sensitive to positive news about acquisitions and mergers and negative product-related announcements. However, pharmaceutical stocks are affected by a wider variety of categories, including news about equity actions, earnings, and dividends.”

“How Does News Affect Biopharma Stock Prices?: An Event Study,” by Andrew Lo, Joonhyuk Cho, and Manish Singh, *PLOS One*, 26 January 2024, p. 11.

134. During the Class Period, Cassava was exactly the type of company the finance literature recognizes as being valued more from news about product development than from recent and near-term financial performance. Cassava operated at a net loss and generated no

revenues, and was not expected to generate revenue and profits until its products reached the marketplace after regulatory approval. As shown in the analyst quotes presented in Appendix-1, the potential future commercialization of simufilam was the primary factor driving equity analysts' valuations of Cassava during the Class Period.

135. What mattered most to analysts and investors about Cassava during the Class Period was the likelihood that simufilam was progressing towards regulatory approval and eventual commercialization. Consequently, one would not expect earnings announcements to be as important to analysts and investors as the news releases pertaining to product development.
136. A properly constructed collective event study test of market efficiency for Cassava therefore focuses on a group of news events that would include the events that were valuation-relevant to the Company given the nature of its business and its stage in the enterprise lifecycle. For this reason, rather than restricting the group of news events to only earnings announcements, I examined news events reported by the Company in Form 8-K filings, and the news events that commanded the broadest attention from the news media.

*b. 8-K Event Dates*

137. I conducted three separate collective event studies, each with a different but well-justified designation for news events. The first collective event study I conducted designated as news events all events reported by the Company in 8-K filings during the Class Period. According to the SEC, publicly traded U.S. companies "must report certain material corporate events on a more current basis. Form 8-K is the 'current report' companies must file with the SEC to announce major events that shareholders should know about."<sup>89</sup> As such, I focused on the events that the Company determined required an 8-K filing. For Cassava, this set of events did include earnings announcements, but also included trial results, share offerings, and other developments that the Company considered material.
138. I conducted the 8-K collective event study two different ways. One run included the 12 earnings announcement event dates, as they were also 8-K event dates. A second run excluded the earnings announcement dates, as financial principles dictate that earnings

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<sup>89</sup> [www.sec.gov/answers/form8k.htm](http://www.sec.gov/answers/form8k.htm).

announcements may not be material for a development company with no currently marketed product.

139. As the date of an 8-K filing could differ from the date of the event or announcement described in the 8-K filing, I examined news articles to determine when the event or announcement described in each 8-K actually transpired. The date the event or announcement became public was identified as the news day. If the 8-K news transpired after the close of trading, the next trading day was set as the effective 8-K event date to be tested.
140. As there would generally be a greater flow of important information on 8-K news days as compared to more ordinary days, if the 8-K event dates more frequently exhibited statistically significant stock returns than all other non-news days, this finding would indicate a cause-and-effect relationship between the release of information and the stock's price movements. I tested this proposition for Cassava stock. Exhibit-8 presents Cassava's 8-K news and effective event dates during the Class Period.

*c. Top News Article Count Days*

141. For a third collective event study test, I focused on the days during the Class Period that had the heaviest news media coverage of Cassava.<sup>90</sup> I then identified the set of days which composed the 5% of all days that had the most published articles mentioning Cassava. It is a generally accepted principle of content analysis that the quantity of coverage relates to the importance of the covered topic.

“The *frequency* with which a symbol, idea, reference or topic occurs in a stream of messages is taken to indicate the *importance, of attention to, or emphasis* on that symbol, idea, reference, or topic in the messages.”

***Content Analysis: An Introduction to Its Methodology*, by Klaus Krippendorff, 2<sup>nd</sup> Edition, Sage Publications, Inc., 2004, p. 59 (emphasis in original)**

142. The methodology of selecting the highest news coverage dates to be the news event dates in the collective event study thus reasonably identifies the days of Cassava's most

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<sup>90</sup> I utilized a *Factiva* search in “All Sources” for articles published during the Class Period where “Cassava Sciences, Inc.” was the “Company” search field parameter.

important news during the Class Period. The screen objectively relies on the news media to identify the most important news days.

143. For articles published during trading hours, the publication date was the news event date. For articles published after trading hours or on a weekend or non-trading holiday, the next trading day was designated the news event date. *Factiva* generally provides the date and time when an article was published. For any instance when no timestamp was provided by *Factiva*, information within the article was used to identify the time of publication.
144. If the top 5% of all days in the Class Period with the highest frequency of Cassava news articles more frequently had statistically significant Cassava stock returns than did all other non- or lesser-news days, this finding would indicate a cause-and-effect relationship between the flow of important information and Cassava stock price movement. This finding would be additional compelling empirical proof of market efficiency.
145. There are 776 trading days in the Class Period, so the top 5% comprised 39 trading days. However, by ranking the days from top to bottom to identify those that are in the top 5%, there were 10 days that had the same number of articles and were tied for the last spot among the top 5%. So that there would not be more than 5% of trading days in the news day group, I excluded these 10 articles and instead relied on the top 35 trading days, which is equivalent to the top 4.51% of trading days during the Class Period with the most Cassava news articles.
146. The 35 trading days that had the largest number of news articles thusly identified and assigned to the news-day group – the top news article count days – constituted the group of high news event dates for this construction of the collective event study. The remaining 741 trading days, on which there were fewer or no news articles, were the designated lesser-news days. Exhibit-9 presents the designations and number of articles corresponding to each trading day.

#### **4. A Caveat About Non-Significant Security Price Movements**

147. It is important to note that an event study tests the joint hypothesis that i) the stock trades in an efficient market, and ii) the appropriate valuation impact of the information disseminated on the event date is of such a large magnitude as to exceed the threshold for statistical significance, according to valuation principles. A finding of statistical significance indicates market efficiency, but a finding of non-significance does not

necessarily establish inefficiency, because a modest non-significant stock price reaction may be the appropriate and efficient stock price reaction to a particular announcement or event.<sup>91</sup>

148. For example, if a company reports business results that are in line with the expectations of analysts and investors, although the announcement would be important, the mix of information may not have changed sufficiently on that date to warrant a statistically significant stock price change. The release of important information consistent with market expectations would maintain the stock price, whereas important information inconsistent with prior expectations would cause a change in the stock price. Similarly, if an important announcement is made alongside countervailing news that impacts the stock price in the opposite direction, the combined mix of news may cause no statistically significant stock price reaction in an efficient market. In these examples, a modest stock price movement, or even no movement at all, may be the appropriate stock price reaction in an efficient market. In such cases, the event study finding that the stock return was non-significant would not indicate inefficiency. In fact, in such cases, the non-significant stock price movement would show that the stock behaved as it should in an efficient market.<sup>92</sup>
149. Similarly, when a company deceives analysts and investors by concealing important information, with either misrepresentations or omissions, the effect of the concealment would generally not be a statistically significant stock price movement at the time of the

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<sup>91</sup> See, e.g., “Event Studies in Securities Litigation: Low Power, Confounding Effects, and Bias,” by Alon Brav and J.B. Heaton, *Washington University Law Review*, vol. 93, no. 2, 2015, p. 602.

<sup>92</sup> Of note, it is becoming increasingly recognized in the literature that the 95% confidence level is not the only statistical finding dispositive of correlation and causation. While significance at the 95% confidence level provides strong proof that the information conveyed by the disclosure event caused the price reaction, it is also well known and now generally accepted that significance at less than the 95% confidence level is informative as well.

Significance at less than the 95% confidence level certainly does not disprove that an event impacted the stock price. See, e.g., *A Guide to Econometrics*, by Peter Kennedy, 6<sup>th</sup> Edition, Blackwell Publishing, 2008, p. 60 (“Hypothesis tests are usually conducted using a type I error rate (probability of rejecting a true null) of 5%, but there is no good reason why 5% should be preferred to some other percentage. The father of statistics, R.A. Fisher, suggested it in an obscure 1923 paper, and it has been blindly followed ever since. Rosnow and Rosenthal (1989, p. 1277) recognize that ‘surely, God loves the .06 as much as the .05.’”).

Note also that “New Views on Statistical Significance Affect Expert Testimony,” by Josh Becker et al., *Law360.com*, 23 May 2019 (“[s]tatistical significance may be part of an expert’s reasoning, but the expert should also consider all possible explanations for a scientific conclusion, including study design and the underlying scientific processes that affect the result. To the extent there are other studies or data that contradict the expert’s conclusion, the expert should not dismiss that other data merely because it is not statistically significant.”).

misrepresentation or omission, or over the duration of the concealment. Instead, the concealment would maintain the mix of public information as it was previously, so the price impact would be maintenance of the price level where it was previously. Thus, by keeping the stock price from falling, such a misrepresentation or omission would introduce or maintain artificial inflation by propping up the stock price.

150. A collective event study test of market efficiency does not require identification of events on which allegation-related information was disclosed. Events should be selected on the basis of an independent analysis of which candidate events are informative about market efficiency. These events may be either related or unrelated to alleged misrepresentations, omissions, or corrective disclosures. In the same vein, an ideal candidate event for testing market efficiency should not necessarily be excluded simply because it also happens to be related to the allegations of the case.
151. When selecting events for a collective event study test of market efficiency, each event need not be so momentous as to be expected to elicit a significant stock price reaction. Rather, the group of events is selected such that the group as a whole is characterized as having higher information flow than on ordinary days. One would not expect all, or even necessarily most, of the event returns in a collective event study to be statistically significant. In a collective event study, statistical testing establishes whether the incidence rate of statistical significance within the news event group is elevated compared to all other dates. If so established, the finding proves the existence of a cause-and-effect relationship between information flow and stock price reaction.

## **5. Regression Analysis to Isolate the Impact of Company-Specific Information**

152. One component of event study analysis is determining how much of the stock return following each event was driven by market-wide and industry sector factors, as opposed to Company-specific information, so that those influences can be statistically factored out. The method, which is generally accepted and widely used in econometric modeling, involves running a regression to determine how the price of a company's stock typically behaves in relation to market-wide and industry sector factors. The method then uses the regression model to determine how much of each event day's actual return is explained by



those market and sector effects. The portion of the stock return that is attributable to market and sector factors is called the “explained return.”

153. The explained return is subtracted from the actual return to isolate the residual return, which is the stock’s return after controlling for explanatory market and sector effects. The residual return reflects the impact of company-specific information on the stock price, if any.
154. I ran regressions modeling Cassava’s stock returns as a function of i) a constant term, ii) the return of the overall stock market, and iii) an industry sector index return.

*a. Market and Sector Indices*

155. For the overall stock market factor, I used the CRSP NYSE/AMEX/NASDAQ/ARCA Market Index (“Market Index”), which is a generally accepted and widely used measure of the overall stock market performance. The Market Index appropriately incorporates payment of dividends by the constituent companies.
156. For the industry sector factor, I used the same sector index that Cassava identified as representative of its industry sector for SEC Regulation S-K disclosure purposes. Regulation S-K requires a public company to identify an index or peer group that is representative of its industry sector.<sup>93</sup> In its annual report, Cassava compared the performance of its shares to the Nasdaq Biotechnology Index.<sup>94</sup> Therefore the “Sector Index” I used to represent Cassava’s industry sector was the Nasdaq Biotechnology Index. The Sector Index appropriately incorporates payment of dividends by the constituent companies.
157. All returns used in the regressions are logarithmic returns – i.e., the natural logarithm of the ratio of the current day’s closing price to the previous day’s closing price. Logarithmic returns are commonly used in event studies and equity analysis because of various computational advantages. Appendix-2 presents the mathematical formula for the logarithmic return and a discussion of the measure.

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<sup>93</sup> 17 CFR §229.201.

<sup>94</sup> Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2022, filed 28 February 2023, p. 76; and Cassava Sciences, Inc., Form 10-K for fiscal year ended 31 December 2023, filed 28 February 2024, p. 80.



158. Exhibit-7 presents the Market Index returns and Sector Index returns. Exhibit-4 presents the Cassava stock price data.

*b. Dummy Variables*

159. Event study analysis compares potentially atypical event days to typical stock return days. One purpose of the regression analysis is to establish what the typical stock return behavior is. It is therefore appropriate to control for or exclude potentially atypical days in the regression analysis. Using dummy variables to control for the potentially atypical observations in the regression estimation period, especially when those dates are the subject of the event study analysis, so that the estimated regression parameters reflect typical stock price dynamics, is a widely used and generally accepted methodology.<sup>95</sup>
160. In my event study analyses, I used dummy variables in the regression model to control for the potentially abnormal returns on identified high information event dates. For the collective event studies focusing on all 8-K events, I used dummy variables in the regressions for all 8-K event dates. For the 8-K test that excluded earnings announcements from among the news event dates, there were dummy variables for all 8-K event dates except the earnings announcements. For the collective event study focusing on the top news article count days, I used dummy variables in the regression to control for each of those identified days.

*c. Rolling Regressions*

161. Given the length of the Class Period, and to ensure that the regression estimation period and estimates would be relatively contemporaneous with the events and ordinary days being tested, I ran one-year rolling regressions. That is, to test whether any given date had a statistically significant residual return, I estimated the regression model using the one year of data preceding the subject date.

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<sup>95</sup> A dummy variable is an indicator variable, included among the explanatory variables in a regression model, which is assigned a value of one for a single day of interest, and a value of zero for all other days. See, e.g., “Event Studies with a Contaminated Estimation Period,” by Nihat Aktas et al., *Journal of Corporate Finance*, vol. 13., no. 1, 2007; and “Testing for Market Efficiency: A Comparison of the Cumulative Average Residual Methodology and Intervention Analysis,” by David Larcker et al., *Journal of Financial and Quantitative Analysis*, vol. 15, no. 2, 1980.

162. The choice of using the one-year period preceding each of the event dates for the respective regression estimation period is a widely used and generally accepted practice in event study analysis.

“Three general choices for the placement of an estimation window are before the event window, surrounding the event window, and after the event window.”

“Materiality and Magnitude: Event Studies in the Courtroom,” by David Tabak and Frederick Dunbar, Chapter 19 of the *Litigation Services Handbook: The Role of the Financial Expert*, 3<sup>rd</sup> Edition, edited by Roman Weil et al., John Wiley & Sons, Inc., 2001, p. 5.

163. The regression results are presented in Exhibit-10, Exhibit-11, and Exhibit-12.
164. For each date in the Class Period, I computed the explained portion of Cassava’s stock return by adding i) the estimated regression intercept term (constant), ii) the day’s Market Index return multiplied by the Market Index regression coefficient, and iii) the day’s Sector Index return multiplied by the Sector Index regression coefficient. I then computed the residual return for each date by subtracting the explained return from the actual return.

## 6. Event Study *t*-Test

165. For each date in the Class Period, a statistical test called a *t*-test was conducted to determine whether the residual return of Cassava stock that day was statistically significant. A *t*-test compares the residual return on an event date to the typical residual returns exhibited over the regression estimation period. Statistical significance for an event date means that the event day return, after controlling for the market-wide and industry sector effects, was of such large magnitude that the security return cannot reasonably be attributed to random volatility but must have been caused by Company-specific information. If the event date residual return is far greater (positively or negatively) than the typical residual return, the *t*-test indicates that the event residual return was unlikely to have been caused by random volatility and is therefore deemed statistically significant.<sup>96</sup> Statistical significance of a

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<sup>96</sup> This test is called the *t*-test because it involves the computation of a *t*-statistic, which is the event day residual return divided by the estimated standard deviation of the residual return. If the absolute value of the *t*-statistic is greater than the critical *t*-statistic value (1.96 for large samples), the likelihood that the residual return could have been caused by random volatility alone is less than 5%. This is generally accepted to be so unlikely that the random volatility explanation can be rejected, and the stock return for that day is deemed statistically significant at the 95% confidence

tested information event means that the event return could not reasonably have been caused by random volatility, so, with market and sector factors also accounted for, the residual stock price movement must have been caused by information about the company.

166. The event study results from the collective test focused on all 8-K events are summarized below and presented in Exhibit-13. The event study results from the collective test focused on the 8-K events excluding earnings announcements are summarized below and presented in Exhibit-14. The event study results from the collective test focused on the top news article count days are summarized below and presented in Exhibit-15. The event study results for all dates during the Class Period from the three respective collective event studies are presented in Exhibit-16, Exhibit-17, and Exhibit-18.
167. As shown in Exhibit-13, eight of Cassava's 41 8-K event dates during the Class Period elicited statistically significant price reactions at the 95% confidence level or higher. As explained below, eight of 41 8-K event dates eliciting statistically significant price reactions indicates market efficiency, as this frequency is much greater than the frequency among lesser-news days, and much greater than the frequency that would be observed if Cassava stock did not react to Company news.
168. As shown in Exhibit-14, excluding the earnings announcements, there were still eight of Cassava's 29 remaining 8-K event dates that elicited statistically significant price reactions at the 95% confidence level or higher. As explained below, this frequency indicates market efficiency, as this frequency is much higher than the frequency among lesser-news days and much higher than what would be observed if the stock did not respond to Company news.
169. As shown in Exhibit-15, 12 of Cassava's 35 top news article count days during the Class Period elicited statistically significant price reactions at the 95% confidence level or higher. As explained next, 12 of 35 high information flow days eliciting statistically significant price reactions indicates market efficiency, as typical days have a much lower statistical significance frequency, and this frequency of statistical significance is much greater than what would be observed if the stock did not respond to Company news.

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level. If the absolute value of the  $t$ -statistic is greater than the critical  $t$ -statistic value of 2.58 for large samples, the likelihood that the residual return could have been caused by random volatility alone is less than 1%, and the security return for that day is deemed statistically significant at the 99% confidence level.

## C. Results of the Collective Event Study Tests

### 1. 8-K Events

170. A higher incidence of statistically significant returns on news event dates relative to all other dates indicates that Cassava stock responded to information and thereby demonstrated market efficiency. If information about Cassava was ignored by investors, or the market infrastructure was such that the information could not be impounded into the stock price, the incidence of significant returns for the news events would be similar to the incidence rate for the non-event days. But this was not the case.
171. The Class Period comprised 776 trading days, of which 41 days were 8-K event days. Cassava's stock return was statistically significant on eight of the 41 8-K event days. This is an incident rate of 19.5%. Of the remaining 735 trading days in the Class Period, deemed only for purposes of this test to be non- or lesser-news days (as they were not 8-K event days), 28 were statistically significant, which is an incidence rate of 3.81%.
172. Clearly, there was a much greater frequency of statistically significant Cassava stock returns on 8-K event dates than on all other more ordinary days (19.5% versus 3.81%). I conducted a statistical test to determine whether eight of 41 8-K event dates eliciting statistically significant stock returns was frequent enough to indicate market efficiency. The statistical test, known as the Fisher Exact Test, determines whether eight significant stock returns out of 41 8-K events could have been the result of random chance alone, or alternatively must have been caused by a cause-and-effect relationship between the release of Company information and Cassava stock price movements. The Fisher Exact Test is a generally accepted and widely used statistical methodology for determining whether incidence rates are meaningfully different between two groups of data or dates.
173. The Fisher Exact Test finds that the difference in the incidence of statistical significance for the 8-K event days versus the ordinary days, 19.5% versus 3.81%, is itself highly statistically significant, and could not reasonably have happened by random chance alone. The 8-K event days did, in fact, exhibit a significantly greater incidence of statistically significant returns compared to all other days.
174. The probability that eight of 41 8-K event days would be statistically significant if Cassava stock did not respond to information (such that Cassava stock behaved the same on news days and non-news days) is only 0.0306%. Therefore, with a confidence level greater than

99.9693%, this finding rejects the null hypothesis that Cassava stock behaved no differently on 8-K event days with a greater flow of information than on all other days. The conclusion is that Cassava stock reacted to information and therefore the market for Cassava stock demonstrated informational efficiency during the Class Period.<sup>97</sup>

## 2. Form 8-K Events Excluding Earnings Announcements

175. In the second collective event study, in which the group of news days were the 8-K days excluding earnings announcements, 29 days of the Class Period's 776 trading days were in the news group and the remaining 747 Class Period days were designated non- or lesser-news days. Cassava's stock return was statistically significant on eight of the news days. This is an incident rate of 27.59%. Among the other 747 trading days, 28 were statistically significant, which is an incidence rate of 3.75%.
176. Clearly, there was a much greater frequency of statistically significant Cassava stock returns on these 8-K event dates than on all other more ordinary days (27.59% versus 3.75%). The Fisher Exact Test determines whether eight significant stock returns out of 29 news events could not reasonably have been the result of random chance alone. On the contrary, this result must have been caused by a cause-and-effect relationship between the release of Company information and Cassava stock price movements.
177. The Fisher Exact Test finds that the difference in the incidence of statistical significance for this group of 8-K event days (which excludes earnings announcements) versus the ordinary days, 27.59% versus 3.75%, is itself highly statistically significant, and could not reasonably have happened by random chance alone. The 8-K event days excluding earnings announcements exhibited a significantly greater incidence of statistically significant returns compared to all other days.
178. The probability that this result could have occurred if Cassava stock behaved the same on news days and non-news days) is only 0.0021%. Therefore, with a confidence level greater than 99.997%, this finding rejects the null hypothesis that Cassava stock behaved no

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<sup>97</sup> To check for robustness in the presence of potential heteroskedasticity (an econometric complexity whereby residual return volatility may change over time), I re-ran the Fisher Exact Test using the Newey-West regression estimation procedure. The results using the Newey-West regression estimates were the same as the results obtained when using the ordinary least squares ("OLS") regression estimates.

differently on news days. The conclusion is that Cassava stock reacted to information and therefore Cassava stock demonstrated informational efficiency during the Class Period.<sup>98</sup>

### 3. Top News Article Count Days

179. The third collective event study I conducted examined the 35 days in the Class Period that had the most news articles about Cassava published,<sup>99</sup> and compared this group of days with all other Class Period days. Cassava's stock return was statistically significant on 12 of the 35 top news article count days. This is an incident rate of 34.29%. Of the remaining 741 trading days in the Class Period, deemed only for purposes of this test to be non- or lesser-news days (as they were not among the top 5% of all days in the Class Period with the highest frequency of Cassava news articles), 23 were statistically significant. For these more ordinary days, the return significance incidence rate was 3.10%.
180. Clearly, there was a much higher frequency of statistically significant Cassava stock returns on the top news article count days as compared to all other more ordinary days (34.29% versus 3.10%). The Fisher Exact Test finds that the difference in the incidence of statistical significance for the top news article count days versus all other days, 34.29% versus 3.10%, is itself highly statistically significant. The probability that 12 of the 35 top news article count days would be statistically significant if Cassava stock did not respond to information (such that Cassava stock behaved the same on news days and non-news days) is only 0.00000039%. This test result could not reasonably have been the result of random chance alone. With an extremely high level of statistical confidence (99.9999996%) this finding rejects the null hypothesis that Cassava stock behaved no differently on the days with the most news articles as opposed to all other days. The difference in the incidence rate of significant returns must have been caused by a cause-and-effect relationship between the release of Company information and Cassava stock price movements.

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<sup>98</sup> The test results are robust to correct for potential heteroskedasticity, as the same results are obtained when using the Newey-West regression estimation procedure instead of OLS.

<sup>99</sup> I utilized a *Factiva* search in "All Sources" for articles published during the Class Period where "Cassava Sciences, Inc." was the "Company" search field parameter.

181. The conclusion from these empirical tests is that Cassava stock reacted to Company information and therefore the market for Cassava stock demonstrated informational efficiency during the Class Period.<sup>100</sup>

#### **IX. CASSAVA STOCK MARKET EFFICIENCY SUMMARY AND CONCLUSION**

182. Cassava stock traded on the Nasdaq with numerous market makers facilitating trading in the stock. Trading volume was well above the level warranting a strong presumption of market efficiency. The Company was widely covered by analysts and the news media. Institutional ownership of Cassava stock was widespread. The Company qualified for Form S-3 registration. Not only did the Company qualify, but it did file a Form S-3 prior to the Class Period and filed two such registrations during the Class Period.
183. The stock's bid-ask spread was substantially narrower than the average bid-ask spread among all other stocks traded on U.S. exchanges. No impediments to market efficiency were present.
184. The average market capitalization and float of Cassava stock were large over the course of the Class Period, compared to other publicly traded U.S. companies. Even at their lowest levels, market capitalization and float were large, greater than the respective market capitalizations of over 1/3 of all other publicly traded U.S. stocks.
185. Cassava stock also satisfied the empirical *Cammer* factor, observably reacting to information flow, thereby demonstrating market efficiency. The collective event study tests proved that there was a cause-and-effect relationship between new, Company-specific information and movements in the price of Cassava stock.
186. In sum, Cassava stock satisfied the *Cammer* and *Krogman* factors over the course of the entire Class Period, usually by wide margins. Given these facts, I conclude that the market for Cassava stock was an efficient market throughout the entire Class Period.

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<sup>100</sup> These test results are robust to correction for potential heteroskedasticity, as the same qualitative results are obtained when using the Newey-West regression estimation procedure instead of OLS.

**X. EFFICIENCY OF THE MARKET FOR CASSAVA OPTIONS**

187. Options on Cassava stock began trading on the CBOE on 15 January 2020, which was prior to the start of the Class Period. I was asked to assess whether the market for Cassava options was efficient during the Class Period.
188. According to generally accepted principles of financial valuation and extensive published empirical research, a stock option's price is a function of the underlying stock price.<sup>101</sup> Therefore, if the underlying stock is efficient and reflects public information, so too is the option efficient, as it too will reflect the same public information. In an efficient market, if the underlying stock price is artificially inflated, so too will be call options on the stock, as call option prices are a positive function of the underlying stock price. Put options will be artificially depressed in price when the underlying stock price is artificially inflated, as put option prices are a negative function of the underlying stock price. A disclosure that dissipates artificial inflation in the stock price will cause call option prices to fall and put option prices to rise, *ceteris paribus*.
189. Therefore, the factors that indicate the efficiency of the market for Cassava common stock examined above are probative of the efficiency of the market for the Cassava options. These factors compel a conclusion that the Cassava options traded in an efficient market over the course of the Class Period.
190. In addition, the *Cammer* court explicitly acknowledged the importance of a CBOE listing and the implications of such a listing for market efficiency:

“We think that, at a minimum, there should be a presumption – probably conditional for class determination – that certain markets are developed and efficient for virtually all the securities traded there: the New York and American Stock Exchanges, the Chicago Board Options Exchange and the NASDAQ National Market System.”  
*Cammer*, 711 F. Supp. at 1292 (quoting Bromberg & Lowenfels, *Securities Fraud and Commodities Fraud*, §8.6 (1988)).

191. That the Cassava Options traded on the CBOE is strong evidence that the Cassava options traded in an efficient market throughout the Class Period.

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<sup>101</sup> “Derivatives Markets and Instruments,” by Don Chance, 2020 CFA Level I Volume V, Fixed Income and Derivatives, 2019, p. 386.



**A. Options Market Efficiency in the Academic Literature**

192. The academic literature attests that options quickly respond to new, company-specific information, and further, that for some companies, options may incorporate the impact of new, company-specific information even quicker than common stock.

“A comparison of the implied stock prices with observed stock prices reveals that the implied stock prices contain information regarding equilibrium stock prices that is not fully reflected in observed stock prices.” **“Options Prices as Predictors of Equilibrium Stock Prices,”** by S. Manaster and R.J. Rendleman, Jr., *The Journal of Finance*, vol. 37, 1982, 1043-1057 at 1043.

“Results indicate that trading in call options leads trading in the underlying shares, with a one-day lag.”

**“The Interrelation of Stock and Options Market Trading-Volume Data,”** by J.H. Anthony, *The Journal of Finance*, vol. 43, 1988, 949-964 at 964.

“... let us proceed with the assumption that equity markets—and, in fact, most free and competitive financial markets—are reasonably efficient. This assumption does not mean that abnormal returns can never be earned, and indeed prices do get out of line with fundamental values. But competition, the relatively free flow of information, and ease of trading tend to bring prices back in line with fundamental values. Derivatives can make this process work even more rapidly. **When prices deviate from fundamental values, derivative markets offer less costly ways to exploit the mispricing.** As noted earlier, less capital is required, transaction costs are lower, and short selling is easier. **We also noted that as a result of these features, it is possible, indeed likely, that fundamental value will be reflected in the derivatives markets before it is restored in the underlying market.** Although this time difference could be only a matter of minutes, for a trader seeking abnormal returns, a few minutes can be a valuable opportunity. All these advantages of derivatives markets make the financial markets in general function more effectively. Investors are far more willing to trade if they can more easily manage their risk, trade at lower cost and with less capital, and go short more easily. This increased willingness to trade increases the number of market participants, which makes the market more liquid. A very liquid market may not automatically be an efficient market, but it certainly has a better chance of being one. ...” **“Derivatives Markets and Instruments,”** by Don Chance, 2020 CFA Level I Volume V, *Fixed Income and Derivatives*, 2019, p. 425 (emphasis added).

## **B. Collective Event Study Tests for Cassava Options**

193. In an informationally efficient market, one would expect the price of Cassava call options to decline following negative news, and to increase following positive news. Conversely, one would expect the price of the Company's put options to increase following negative news and to decrease following positive news. To test whether the Cassava options demonstrated informational market efficiency by exhibiting a cause-and-effect relationship between their prices and information flow, I conducted collective event studies for the Cassava options on the same set of events as examined in the collective event studies for Cassava common stock.
194. According to fundamental option pricing principles, option prices are a function of the underlying stock price, the contract strike price, time to expiration, interest rates, the anticipated level of stock price volatility, and anticipated dividends.<sup>102</sup>
195. As a result of time decay and the impact of the other relevant variables, the price dynamics of an option price continuously change. These changing price dynamics make it impossible to conduct an event study on the returns of an individual options contract with a valid *t*-test for statistical significance. However, individual options can be combined into a portfolio that, consistent with option valuation principles, should have stationary price dynamics and behave the same as the underlying stock in an efficient market.
196. According to option pricing principles, a combination portfolio consisting of a purchased call option, a written put option with the same strike price, and a long position in risk-free bills equal to the present value of the strike price and anticipated dividends, should replicate an investment in the underlying stock.<sup>103</sup> The options literature explains that such a combination can be treated as a "synthetic stock," and its behavior in an efficient market should track the behavior of actual stock.<sup>104</sup> Based on this principle, I constructed a time series of synthetic stock prices so that I could test whether the option prices responded to

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<sup>102</sup> See, e.g., *Options, Futures, and other Derivatives*, by John C. Hull, 9<sup>th</sup> Edition, Pearson, 2015, p. 234.

<sup>103</sup> See, e.g., *Investment Analysis & Portfolio Management*, by Frank C. Reilly and Keith C. Brown, 7<sup>th</sup> Edition, South-Western, 2003, p. 884.

<sup>104</sup> This relationship holds for non-dividend paying stocks, and Cassava did not pay a dividend during the Class Period.

the release of new, Company-specific information in a statistically significant manner – similar to the behavior of the underlying stock.

197. I conducted collective event studies on the synthetic Cassava stock prices using the same collective event study methodology that I used for the Cassava stock. I tested whether the synthetic Cassava stock prices, and therefore the prices of the Cassava options that composed the synthetic stock, changed significantly in response to the Company's 8-K events, 8-K events excluding earnings announcements, and top news article count days. I compared the movements in the synthetic stock prices on these groups of news days to the movements on all other days during the Class Period, just as I did for the underlying Cassava stock.

### **1. Computation of Cassava Synthetic Stock Prices**

198. If an investor were to purchase a synthetic share of Cassava stock from Cassava stock options, that investor would need to buy a call option at its ask price, sell a put at its bid price, and invest at the risk-free interest rate to execute this transaction ("synthetic ask price").<sup>105</sup> For the risk-free rate, I used the 1-Year Treasury Constant Maturity Rate.<sup>106</sup> The synthetic ask price can be expressed as follows:

$$S_{Ask} = C_{Ask} - P_{Bid} + PV(K)$$

Where:

$S_{Ask}$  = Synthetic stock ask price

$C_{Ask}$  = Call option ask price

$P_{Bid}$  = Put option bid price

$PV(K)$  = Present value of the strike price (invested cash)

199. Alternatively, if an investor were to sell a synthetic share of Cassava stock, that investor would need to sell a call option at its bid price, buy a put option at its ask price, and borrow the present value of the strike price and anticipated dividends ("synthetic bid price"). I used

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<sup>105</sup> The call and put options must have the same strike price and time to expiration.

<sup>106</sup> Interest rate data obtained from: <https://fred.stlouisfed.org/series/DGS1>.

the Broker-Call Money Rate Index as the interest rate for borrowed money.<sup>107</sup> Interest rate data are presented in Exhibit-19. The synthetic bid price can be expressed as follows:

$$S_{\text{Bid}} = C_{\text{Bid}} - P_{\text{Ask}} + PV(K)$$

Where:

$S_{\text{Bid}}$  = Synthetic stock bid price

$C_{\text{Bid}}$  = Call option bid price

$P_{\text{Ask}}$  = Put option ask price

$PV(K)$  = Present value of the strike price (borrowed money)

200. Using the above methodology and option data obtained from *OptionMetrics*, I computed synthetic stock bid and ask prices from Cassava options for every day during the Class Period. I computed a synthetic stock price from the closing bid and ask quotes of every listed Cassava option contract on each day during the Class Period and for each day prior to the Class Period since Cassava options were first listed on the CBOE. On each day, I averaged all computed synthetic stock bid prices to arrive at that day's synthetic stock bid price. On each day, I averaged all computed synthetic stock ask prices to arrive at that day's synthetic stock ask price. I then took the midpoint of the synthetic stock ask and bid prices to arrive at each day's synthetic stock price constructed from option prices. From the synthetic stock prices, I calculated daily logarithmic returns.<sup>108</sup> The prices and returns of the synthetic stock are presented in Exhibit-20.

## 2. Isolating the Impact of Company-Specific Information

201. I ran regressions on the daily synthetic stock price returns using the same explanatory variables and dummy variables that I used for the common stock event study regressions. The estimation periods for the event studies were, however, different because Cassava's stock option trading commenced on 15 January 2020, which was less than one year prior to the start of the Class Period. For the event study regressions on Class Period dates prior

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<sup>107</sup> Broker-Call Money Rate Index obtained from Bloomberg.

<sup>108</sup> Because creating a synthetic share of stock requires that the call option and put option have the same strike price and time to expiry, the analysis was performed on only option contracts that could be matched based on strike price, date of execution, and date of expiry.

to 15 January 2021, I used all available prior synthetic stock returns, but the length of the regression estimation period would necessarily be less than one full year. The regression results are presented in Exhibit-21, Exhibit-22, and Exhibit-23.

202. I computed explained and residual returns for the synthetic stock in the same manner used for the actual stock. That is, for each date in the Class Period, I computed the explained portion of the Cassava synthetic stock return by adding i) the estimated regression intercept term, ii) the respective day's Market Index return multiplied by the Market Index coefficient estimated by the regression, and iii) the respective day's Sector Index return multiplied by the regression's Sector Index coefficient. Residual return equals actual return minus explained return.
203. Just as with the common stock, a *t*-test was conducted to determine whether the residual return of the Cassava synthetic stock (which reflects the option prices) was statistically significant on each Class Period date. The results of the synthetic stock event study conducted on all 8-K events are presented in Exhibit-24. The results of the synthetic stock event study conducted on the 8-K events excluding earnings announcements are presented in Exhibit-25. The results of the synthetic stock event study conducted on top news article count days are presented in Exhibit-26. The results of the synthetic stock event studies for all dates during the Class Period are presented in Exhibit-27, Exhibit-28, and Exhibit-29.
204. As shown in Exhibit-24 and Exhibit-27, the synthetic stock return was statistically significant on nine of Cassava's 41 Form 8-K event dates during the Class Period. Eight of those nine statistically significant days were also statistically significant in the 8-K collective event study for the common stock. Similarly, as shown in Exhibit-25 and Exhibit-28, the synthetic stock return was statistically significant on nine of Cassava's 29 8-K dates excluding earnings announcements during the Class Period. Eight of those nine statistically significant days were also statistically significant in the Form 8-K (excluding earnings announcements) collective event study for the common stock. Further, as shown in Exhibit-26 and Exhibit-29, the synthetic stock return was statistically significant on 11 of Cassava's 35 top news count days during the Class Period. All 11 of those top news count days were also significant in the top news count collective event study for the common stock.

## **C. Results of the Collective Event Study Tests on Synthetic Cassava stock**

### **1. 8-K Events**

205. Nine of 41 Form 8-K announcements elicited statistically significant synthetic stock price reactions, for an incidence rate of 21.95%. The Fisher Exact Test confirms that this incidence rate was frequent enough to indicate that the synthetic stock reacted to information and thereby demonstrated market efficiency. That the synthetic stock reacted significantly to 8-K announcements indicates that so too did the options composing the synthetic stock.
206. Nine of the 41 Form 8-K event days had statistically significant synthetic stock returns, which is an incidence rate of 21.95%. Of the remaining 735 trading days, deemed for purposes of this test to be lesser- or non-news days, 29 were statistically significant, which is an incidence rate of 3.95%. The Fisher Exact Test finds that this difference in significance incidence rates, 21.95% versus 3.95%, is itself, highly statistically significant. The 8-K event days exhibited a significantly greater incidence of statistically significant synthetic stock returns compared to all other days.
207. The probability that nine of 41 Form 8-K event days would be statistically significant if Cassava options did not respond to information (such that the synthetic stock behaves the same on news days and non-news days) is only 0.00693%. This finding rejects the null hypothesis that Cassava options behaved no differently on Form 8-K announcement days with a greater flow of information than on all other days. The conclusion is that Cassava options reacted to information and therefore the market for Cassava options demonstrated informational efficiency.

### **2. 8-K Events Excluding Earnings Announcements**

208. A Fisher Exact Test confirms that, just as was the case with the common stock, nine of the group of 29 Form 8-K events excluding earnings announcements had a significantly greater incidence rate of significant synthetic stock returns than did the group of all other ordinary days. The significantly greater incidence rate indicates that the synthetic stock reacted to information and thereby demonstrated market efficiency. That the synthetic stock reacted significantly to these news events indicates that so too did the options composing the synthetic stock.

209. Nine of the 29 Form 8-K events excluding earnings announcements had statistically significant returns, which is an incidence rate of 31.03%. Of the remaining 747 trading days 30 were statistically significant, which is an incidence rate of 4.02%. The Fisher Exact Test finds that this difference in significance incidence rates, 31.03% versus 4.02%, is itself, highly statistically significant. The events exhibited a significantly greater incidence of statistically significant synthetic stock returns compared to all other days.
210. The probability that nine of the group of 29 Form 8-K events excluding earnings announcements would be statistically significant if Cassava options did not respond to information (such that the synthetic stock behaves the same on news days and non-news days) is only 0.00038%. This finding rejects the null hypothesis that Cassava options behaved no differently on these event days than on all other days. The conclusion is that Cassava options reacted to information and therefore the market for Cassava options demonstrated informational efficiency.

### **3. Top News Article Count Days**

211. Just as was the case with the common stock, 11 of the 35 top news article count days elicited statistically significant synthetic stock price reactions. A Fisher Exact Test confirms that this incidence rate was frequent enough to indicate that the synthetic stock reacted to information and thereby demonstrated market efficiency. Because the synthetic stock reacted significantly to top news article count days, so too did the options composing the synthetic stock.
212. 11 of the 35 top news article count days had statistically significant returns, which is an incidence rate of 31.43%. Of the remaining 741 trading days, deemed for purposes of this test to be lesser- or non-news days, 28 were statistically significant, which is an incidence rate of 3.78%. The Fisher Exact Test finds that this difference in significance incidence rates, 31.43% versus 3.78%, is itself, highly statistically significant. The top news article count days exhibited a significantly greater incidence of statistically significant synthetic stock returns compared to all other days.
213. The probability that on 11 of 35 top news article count days the synthetic stock residual return would be statistically significant if Cassava options did not respond to information (such that the synthetic stock behaves the same on news days and non-news days) is only

0.00002%. This finding rejects the null hypothesis that Cassava options behaved no differently on top news article count days than on all other days. The conclusion is that Cassava options reacted to information and their market therefore demonstrated informational efficiency.

**D. Correlation Between Cassava Common Stock Price Returns and Cassava Synthetic Stock Price Returns**

214. If the market for a company's common stock is found to be efficient, and the synthetic stock constructed from options on that stock does indeed replicate the underlying stock investment, then that would provide compelling additional evidence that the market for the options is efficient.
215. To further assess whether the Cassava synthetic stock prices, and therefore the Cassava options, moved with the underlying stock, I computed the correlation between Cassava stock returns and Cassava synthetic stock returns during the Class Period. The correlation between these two series of returns was 99.77% during the Class Period. This high correlation is compelling evidence that the Cassava options appropriately tracked the Cassava common stock, which in turn implies that the market for the Cassava options was an efficient market throughout the Class Period.

**E. Cassava Option Market Efficiency Summary and Conclusion**

216. Options are designed to move with the underlying stock. If the underlying stock trades in an efficient market, such that the underlying stock price reacts to and incorporates public company information, then by design, the options on that stock will also trade efficiently. Thus, the *Cammer* and *Krogman* factors that indicated that the market for Cassava stock was an efficient market also serve to indicate that the market for Cassava stock options was an efficient market.
217. In addition to these factors and the generally accepted principles of option valuation that indicate the market for Cassava stock options was an efficient market, empirical tests prove that the Cassava options reacted to Company information and thus demonstrated efficiency. The Cassava options satisfied the fifth *Cammer* factor, observably reacting to information flow, thereby demonstrating market efficiency. The empirical test proved that there was a cause-and-effect relationship between Company-specific information and



movement in the value of Cassava synthetic stock, which is composed of and therefore reflects the behavior of the Cassava options.

218. Given these facts, I conclude that the Cassava options traded in an efficient market over the course of the Class Period.

## **XI. COMMON DAMAGES METHODOLOGY**

219. Lead Counsel also asked me to opine on whether Section 10(b) damages can be measured for all Class members using a common Class-wide methodology that is consistent with Plaintiffs' theory of liability.
220. Section 10(b) addresses liability for investor losses sustained in connection with the purchase or sale of securities as a result of fraud, including Defendants' material misrepresentations and/or omissions.
221. It should be noted that I have not conducted a loss causation analysis or computed damages as of this time, nor have I been asked to do so. If asked, I will do so at the appropriate stage of this litigation. The full loss causation analysis that will be necessary to calculate damages in the current case requires the full development of the factual record.
222. The out-of-pocket damages methodology discussed herein is consistent with Plaintiffs' theory of liability and can be applied commonly for all Class members. The out-of-pocket damages methodology is used to compute damages in virtually all securities class action cases. It has been acknowledged as the appropriate damages model in published legal scholarship.<sup>109</sup>
223. This damage computation methodology allows the calculation of individual and Class-wide damages stemming from alleged fraud. The methodology accommodates alternative potential determinations of liability with respect to specific alleged misrepresentations and omissions. Economic analyses, including valuation and empirical event study analysis, can be used to estimate the relationship between specific

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<sup>109</sup> See, e.g., "Cause for Concern: Causation and Federal Securities Fraud," by Jill Fisch, *Iowa Law Review*, vol. 94, 2009; and "Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities," by Daniel Fischel, *The Business Lawyer*, vol. 38, no. 1, 1982 ("Isolating the effect of the alleged misconduct on the firm's stock price is required by the out-of-pocket measure of damages, the traditional method for computing damages in open market trading cases under the rule 10b-5, which limits recovery to the difference between the price paid or received, and the 'real' value of the security at the time of the purchase/sale.").

statements/omissions or sets of statements/omissions and the subsequent effect on security prices. This applies to artifices, affirmative statements, omissions, and/or corrective disclosures. As such, Class-wide damages in response to any specific misrepresentations and omissions ultimately established by Plaintiffs can be calculated in a straightforward manner common to all Class members.

224. Artificial inflation is the difference between the observed market price of a security and what that security price would have been but for the fraud. An investor who buys a security that is artificially inflated is overpaying by the amount of the artificial inflation in the security.
225. Out-of-pocket damages are the amount the investor overpaid for the security on account of the fraud, less any artificial inflation they recovered upon sale or disposition of the security. Therefore, for the common stock, out-of-pocket damages are measured as the difference between the amount of stock price inflation at purchase and the amount of inflation in the stock price at sale or, if held, at the end of the Class Period, taking into account formulaic prescriptions in relevant case law and statutes.
226. Stock options are derivative securities, whose values depend on the value of the underlying stock. If the underlying stock is artificially inflated, the price of call options on the stock will also be artificially inflated, and the price of put options will be artificially depressed. Given the inflation ribbon for the common stock, widely used and generally accepted option pricing formulas, such as the binomial American option pricing formula (the “Binomial model”) or the Black-Scholes formula, can be used to determine how much artificial inflation is in each call option on any given day and how much each put option price is artificially depressed. These option pricing formulas can also determine how much artificial inflation or artificial depression dissipated from call options or put options, respectively, on the corrective disclosure date(s). With these results, the out-of-pocket damage methodology can be applied to compute damages sustained by Class members who purchased Cassava call options or wrote Cassava put options during the Class Period.
227. To the extent that there may be specific issues complicating the quantification of artificial inflation encountered in the execution of the out-of-pocket damages methodology due to any potentially unique facts and circumstances of this case, the standard tools of valuation analysis can be applied as needed to value the Cassava Securities in the but-for scenario,

and that but-for price can then be compared with the actual prevailing market price to arrive at the measure of artificial inflation. That is, the standard array of valuation tools commonly used to value securities can be applied to measure what the price of the Cassava Securities would have been but for the fraud, and that but-for valuation would determine how much artificial inflation was in the observed market price.

228. Valuation analysis is undertaken continuously, every day, for virtually every publicly traded security, and these tools address the very complexities that could potentially be encountered in the course of computing inflation and damages in this case. Valuations assuming alternative scenarios are commonly conducted by analysts and investors.
229. Among the commonly used valuation tools that are available to investors and analysts in real time, and forensic analysts when computing damages, are, for example: valuation multiple models, such as those based on earnings, earnings before interest, tax, depreciation and amortization (EBITDA), revenue, book value, and cash flow; discounted cash flow (DCF) models; scenario analysis; generally accepted option pricing formulas; and the literature regarding valuation effects of various factors such as reputation, transparency, governance, and the quality of internal controls. In addition, forensic analysts have the added advantage of being able to use event study analysis, which quantifies the price effects that occurred when information did reach the market.
230. Assuming that a verdict is entered in favor of the Plaintiffs on the allegations of fraud, Section 10(b) per-security damages can be measured as follows:
  - i. First, valuation tools, which would include event study analysis, and potentially other empirical analyses, if necessary, would be used to establish if corrective disclosures caused the price of the Cassava Securities to fall. This analysis, after controlling for potentially non-fraud-related information, would establish whether the fraud had caused the security price to be artificially inflated, and if corrective disclosure caused that artificial inflation to dissipate, in turn causing investor losses. This analysis would apply on a Class-wide basis.
  - ii. Second, an inflation ribbon would be constructed, using generally accepted empirical analysis and valuation tools, indicating how much artificial inflation caused by the alleged fraud was in the price of the Cassava Securities on each day during the Class Period, if any. An inflation ribbon is a time series of the difference

between a security's actual price observed in the marketplace, and the estimated price that the security would have traded at each day had there been full disclosure. Construction of the inflation ribbon generally employs event study analysis, combined with widely used and generally accepted valuation tools. The inflation ribbon is often constructed by working chronologically backwards from the final corrective disclosure back to the start of the Class Period, accounting for alleged fraud-related residual price declines as they occurred. Inflation prior to a corrective disclosure that dissipated inflation is greater than the inflation afterward by the amount of inflation that dissipated. The corrective disclosure that finally eliminates all remaining artificial inflation may occur at or after the end of the Class Period.

- iii. Supplementing event study results, the full array of generally accepted and widely used valuation tools can be applied, if necessary, to calculate the but-for security prices under the assumption of prior full disclosure. This analysis would also apply on a Class-wide basis.
- iv. This analysis enables computation of the artificial inflation ribbon even in cases where there is confounding information, changes in the concealed information, and changes in the value of the concealed information, among other potential complexities. This analysis would also apply on a Class-wide basis. My reading of the Plaintiffs' allegations and my review of the experience of the Company over the course of the Class Period uncovered no facts or circumstances that are extraordinarily unusual or might make application of this methodology exceptionally difficult.
- v. Third, the measure of per-security damages generally applied in Section 10(b) cases is the reduction in the inflation ribbon over an investor's holding period (the economic/inflation loss). That is, for each Class member, per-security damages would be calculated as the difference between the inflation on the date the securities were purchased and the inflation on the date those same securities were subsequently sold.
- vi. Per-security damages are limited, however, to be no greater than the decline in the security price over the investor's holding period, which is the investment loss actually sustained.

- vii. Pursuant to the Private Securities Litigation Reform Act of 1995 (15 U.S.C. § 78u-4(e)), for purposes of computing the investment loss limitation on damages, for any securities sold during the 90-day period after the final corrective disclosure, the investment loss is computed as if the selling price was the greater of the actual selling price or the average closing price following the final corrective disclosure up to the sale date. For any securities held 90 days or more beyond the final corrective disclosure, the investment loss is computed as if the securities were sold for the average closing price over the 90 days following the final corrective disclosure.
  - viii. The calculation of each Class member's per-security damages would be a mechanical arithmetic exercise for all Class members who bought Cassava Securities during the Class Period, conducted the same way for all Class members, applying the results of the Class-wide analyses described above to each Class member's security trading data.
231. In the instant case, just as in virtually all Section 10(b) class action securities cases, damages for all Class members can be computed in the same way, applying this common methodology to all Class members, using the out-of-pocket damages model, in accordance with widely used and generally accepted methodology and common analytics, and readily available daily pricing information for the Cassava Securities. This damages computation methodology is consistent not only with Plaintiffs' theory of liability, but also with governing statutes and case law.
232. I have not yet been asked to calculate damages. The exact damages calculations will depend, in part, on the completion of discovery and full development of the factual record in this case. However, any valuation or computational complexities that may be encountered in the execution of the damages methodology will affect all Class members commonly, and therefore will be addressed in a common fashion. The methodology described above is generally accepted and widely used for calculating damages under Section 10(b) for all Class members in securities class actions.

**XII. LIMITING FACTORS AND OTHER ASSUMPTIONS**

233. This report is furnished solely for the purpose of court proceedings in the above-referenced matter and may not be used or referred to for any other purpose. The analysis and opinions contained in this report are based on information available as of the date of this report. I reserve the right to amend, refine, or supplement this report in the event that I become aware of additional information, evidence, arguments, or analyses which bear on my work in this matter.

  
Steven P. Feinstein, Ph.D., CFA

### XIII. APPENDIX-1: ANALYST QUOTES

A1-1. Below are excerpts from analyst reports illustrating that, over the course of the Class Period, equity analysts valued Cassava using present value methodologies that hinged on the assessed probability of success for Cassava's pipeline product, simufilam, and estimates of projected cash flows that would eventually be achieved if the product would be approved and commercialized.

"Our PT of \$20 was derived by using a weighted-average cost of capital of 18% for Cassava shares to discount free cash flows from our projection of annual sales of simufilam in Alzheimer's disease, and dividing them by our projected number of shares for each year to account for the effects of share dilution. We then factored in a 2% terminal growth rate, and a 50% clinical program probability of success. Investment thesis risks include failure of clinical trials to prove efficacy, regulatory requirements for additional clinical studies, assembling a commercialization team, failure to show competitive differentiation, intellectual property expiry or invalidation, and potential need to raise additional funds under poor market conditions."

**"Final Analysis of Simufilam Phase 2b Is Transformative; Upgrading to Buy from Neutral With a \$20 PT,"** by Vernon Bernardino, HC Wainwright, analyst report, 23 September 2020, p. 2.

"In valuing SAVA, we use a DCF analysis, in which we have estimated the cash flow to Cassava from simufilam in Alzheimer's disease by applying a 50% cash flow contribution margin to our probability-adjusted revenue projections, which yields ~\$23/share. We use a 55% probability of success and a 30% discount rate. We also have a \$50M FLNA platform pipeline placeholder that yields ~\$1/share."

**"Savvy New Target for Neurodegenerative Diseases with Provocative, Early, Clinical Data: Initiating at OW & \$24 PT,"** by Charles Duncan and Pete Stavropoulos, Cantor Fitzgerald, analyst report, 22 October 2020, p. 5.

“Our model was updated for the 2/8 equity financing and extended to 2031. Our assumptions around simufilam launching in 2025 remain unchanged. We apply a 70% risk adjustment (or 30% POS, see views noted above on POS) based on stage of development, clinical trial risk, and other factors, including the challenges historically in Alzheimer’s disease drug development. Our model assumes that over time, post-commercial launch, simufilam could potentially capture ~8%-11% of the AD market. This assumes that based on the US population over 60 years of age, 10% have AD and 25% of them are diagnosed, representing ~1.3M people in the US and ~2M in the EU. With the recent equity financing now bringing the cash balance to >\$275M, the \$100M ATM in place, the clinical data to date, and additional data updates that could further de-risk the P3 trials, the cost of capital for Cassava should be lower. We reflect this with a discount rate of 20%, reduced from the prior 30% that we apply to pre-revenue, more early-mid stage clinical development companies. We have increased the long-term growth rate to 3%, from 1%, given our view for a rising probability of successful progress in AD. Expenses were increased in 2021 to \$22M, from \$5M - \$6M as a phase 3 program planning and initiation will likely increase opex. The 20% discount is then applied to the free cash flow, discounted EPS, and sum-of-the-parts models, which are equally weighted, to derive a PT. Combined out price target is increased to \$80, from \$14.”

**“Simufilam + Cog Data + Shifting Alzheimer’s Disease Landscape = Growing Opportunity; Raising PT to \$80,”** by Jason McCarthy, Maxim Group, analyst report, 16 February 2021, p. 5.

“Based on our scenario analysis, we value SAVA at \$8/share. Our valuation is based on the NPV of our scenario analysis which points to a Bull case value of \$15.87/share (weighted 20%), Base case value of \$1.50/share (weighted 70%), and Bear case value of \$0.47/share (book value at the end of 2032). Although we do not anticipate SAVA successfully reaching commercialization, we feel there could be a surprise approval, similar to Biogen’s (Nasdaq: BIIB: NR) Aduhelm, in 2029/2030. However, Aduhelm has underwhelmed so far, with annual sales of just \$3 million in 2021. Therefore, we initiate coverage with a SELL rating and \$8 price target.”

**“This Cassava Won’t Take Root: Initiating Coverage of SAVA with a SELL, \$8 Price Target,”** by James Jang, Univest Securities, analyst report, 1 April 2022, p. 1.



“Our DCF/NPV/PE based valuation indicate a 12-month price target of \$100—approx. \$25BN in probability adjusted peak sales in 2040 from simufilam in mild to moderate Alzheimer’s disease with a probability of success (POS)/market penetration of 15%/25%. Key risks include clinical trial failure, strict regulatory hurdles leading to peer trial failures, negative readthrough from CUNY investigation, failure to show reproducible clinical benefits in larger patient cohorts, and competitive pressure.”

**“2Q22—2X Larger Cohort Data at 12 Months Continue to Show Cognition Improvement in Alzheimer’s Patients,”** by Soumit Roy and Danya Ben-Hail, Jones Research, analyst report, 3 August 2022, p. 3.

“Our \$124 PT was derived by using a weighted-average cost of capital of 13% for Cassava shares to discount free cash flows from our projection of annual sales of simufilam in Alzheimer’s disease, and dividing them by our projected number of shares for each year to account for the effects of share dilution. We then factored in a 2% terminal growth rate, and a 65% clinical program probability of success. Investment thesis risks include failure of clinical trials to prove efficacy, regulatory requirements for additional clinical studies, assembling a commercialization team, failure to show competitive differentiation, intellectual property expiry or invalidation, and potential need to raise additional funds under poor market conditions.”

**“Enrollment Complete in First Pivotal Simufilam Phase 3; Reiterate Buy Rating and \$124 PT,”** by Vernon Bernardino, H.C. Wainwright, analyst report, 4 October 2023, p. 2.

**XIV. APPENDIX-2: LOGARITHMIC RETURNS**

A2-1. Logarithmic returns, rather than percent change returns, are commonly used in stock return regressions and event study analysis and were used in the regression modeling here. The formula for a logarithmic return is:

$$R_t = \ln\left(\frac{P_t + d_t}{P_{t-1}}\right)$$

where:

- $R_t$  is the logarithmic return on day  $t$ ;
- $P_t$  is the stock price at the end of day  $t$ ;
- $P_{t-1}$  is the stock price from the previous day, day  $t-1$ ;
- $d_t$  is the dividend on day  $t$ , if any.

A2-2. The formula for converting a logarithmic return into a dollar return is:

$$DR_t = P_{t-1} \cdot (e^{R_t} - 1)$$

where:

- $DR_t$  is the dollar return on day  $t$ ;
- $P_{t-1}$  is the stock price from the previous day, day  $t-1$ ;
- $e$  is natural  $e$  (approximately 2.7);
- $R_t$  is the logarithmic return on day  $t$ .

A2-3. If a stock price falls from \$20 to \$18, the percent change in price is -10%, equal to the \$2 decline divided by the original \$20 price. The logarithmic return, however, is -10.54%, equal to  $\ln(\$18/\$20)$ .

A2-4. The logarithmic return relates a price change to an average of the original, final, and intervening prices over the course of a price decline. As such, for large price declines, it is possible for a logarithmic price decline to exceed 100%, since the price decline may be greater than the average of the beginning and ending prices.

A2-5. An attractive feature of a logarithmic return is that it can be decomposed into contributing factors linearly. That is, the portion of a logarithmic return caused by company-specific information is isolated by subtracting from the total logarithmic return the portion of the total return caused by market and sector factors.

**Exhibit-1**  
**Documents and Other Information Considered**

**CASE LEGAL DOCUMENTS**

- Consolidated Complaint for Violations of the Federal Securities Laws, filed 18 August 2022.
- Motion to Dismiss Plaintiffs' Consolidated Complaint for Violations of the Federal Securities Laws, filed 25 October 2022.
- Order Granting in Part and Denying in Part Defendants' Motion to Dismiss, filed 11 May 2023.

**NEWS ARTICLES AND PRESS RELEASES**

- Factiva news articles from 14 September 2019 to 12 October 2023, downloaded using the following search parameters: All Sources; All Authors; Company: Cassava Sciences, Inc.; All Subjects; All Industries; All Regions.

**ANALYST REPORTS**

- Analyst reports, 13 April 2016 through 13 October 2023, in the following files:
  - 2016.04.13\_JonesTrading
  - 2016.05.13\_JonesTrading
  - 2016.05.19\_JonesTrading
  - 2016.07.01\_JonesTrading
  - 2016.07.20\_JonesTrading
  - 2016.09.30\_JonesTrading
  - 2016.10.28\_JonesTrading
  - 2017.03.13\_JonesTrading
  - 2017.03.23\_JonesTrading
  - 2017.05.04\_JonesTrading
  - 2017.05.10\_JonesTrading
  - 2019.09.09\_MaximGroup
  - 2019.09.10\_MaximGroup
  - 2019.09.13\_HCWainwright
  - 2019.09.17\_MaximCassava
  - 2019.09.17\_MaximGroup
  - 2019.09\_BioPharmaInsight
  - 2019.10.29\_MaximGroup
  - 2019.11.12\_HCWainwright
  - 2019.12.05\_HCWainwright

**Exhibit-1**  
**Documents and Other Information Considered**

- 2019.12.06\_MaximGroup
- 2019.12.06\_StreetwiseReports
- 2019.12.09\_MaximGroup
- 2019.12.13\_CapitalCube
- 2019.12\_BioPharmInsight
- 2020.01.10\_MaximGroup
- 2020.03.25\_MaximGroup
- 2020.03.26\_HCWainwright
- 2020.03.27\_HCWainwright
- 2020.03\_BioPharmInsight
- 2020.05.08\_HCWainwright
- 2020.05.15\_MaximGroup
- 2020.05.18\_HCWainwright
- 2020.05.18\_MaximGroup
- 2020.05.29\_CapitalCube
- 2020.06.03\_StreetwiseReports
- 2020.06.04\_MaximGroup
- 2020.06.04\_Sadif\_Investment\_Analytics
- 2020.06.05\_MaximGroup
- 2020.06\_BioPharmInsight
- 2020.07.14\_Sadif\_Investment\_Analytics
- 2020.08.10\_MaximGroup
- 2020.08.12\_MaximGroup
- 2020.08.13\_MaximGroup
- 2020.09.02\_CapitalCube
- 2020.09.11\_SmartInsider
- 2020.09.14\_MaximGroup
- 2020.09.23\_HCWainwright
- 2020.09\_BioPharmInsight
- 2020.10.12\_SADIF\_RatingsUpgrade
- 2020.10.13\_Sadif\_Investment\_Analytics
- 2020.10.22\_Cantor
- 2020.11.04\_Cantor
- 2020.11.05\_HCWainwright
- 2020.11.10\_HCWainwright
- 2020.11.18\_Cantor
- 2020.11.19\_MaximGroup
- 2020.12\_BioPharm Insight
- 2021.01.04\_CapitalCube
- 2021.02.02\_Cantor

**Exhibit-1**  
**Documents and Other Information Considered**

- 2021.02.02\_StreetwiseReports
- 2021.02.16\_HCWainwright
- 2021.02.16\_MaximGroup
- 2021.02.22\_MaximGroup
- 2021.02\_BioPharm Insight
- 2021.03.15\_Cantor
- 2021.03.17\_JonesTrading
- 2021.03.23\_JonesTrading
- 2021.03.24\_HCWainwright
- 2021.03.25\_CapitalCube
- 2021.04.21\_JonesTrading
- 2021.04.22\_HCWainwright
- 2021.04.27\_MaximGroup
- 2021.04.28\_MaximGroup
- 2021.05.10\_JonesTrading
- 2021.05.25\_Cantor
- 2021.06.01\_JonesTrading
- 2021.06.07\_JonesTrading
- 2021.06.21\_Cantor
- 2021.06.21\_JonesTrading
- 2021.06.28\_JonesTrading
- 2021.07.20\_HCWainwright
- 2021.07.22\_MaximGroup
- 2021.07.22\_MaximGroupBiotech
- 2021.07.26\_HCWainwright
- 2021.07.26\_MaximGroup
- 2021.07.27\_MaximGroup
- 2021.07.29\_Cantor
- 2021.07.29\_JonesTrading (2)
- 2021.07.29\_JonesTrading (3)
- 2021.07.29\_JonesTrading
- 2021.07.30\_HCWainwright
- 2021.08.03\_Cantor (2)
- 2021.08.03\_Cantor
- 2021.08.03\_Maxim
- 2021.08.03\_MaximGroup (2)
- 2021.08.03\_MaximGroup
- 2021.08.03\_Maximgroup1
- 2021.08.04\_HCWainwright (2)
- 2021.08.04\_HCWainwright

**Exhibit-1**  
**Documents and Other Information Considered**

- 2021.08.04\_JonesTrading
- 2021.08.24\_Cantor (2)
- 2021.08.24\_Cantor
- 2021.08.24\_JonesTrading
- 2021.08.24\_MaximGroup (2)
- 2021.08.24\_MaximGroup
- 2021.08.25\_JonesTrading
- 2021.08.27\_Cantor (2)
- 2021.08.27\_Cantor
- 2021.08.27\_JonesTrading
- 2021.09.03\_JonesTrading
- 2021.09.22\_JonesTrading
- 2021.09.22\_MaximGroup
- 2021.09.23\_MaximGroup
- 2021.09.24\_MaximGroup (2)
- 2021.09.24\_MaximGroup
- 2021.10.06\_CantorFitzgerald
- 2021.10.06\_CantorFitzgerald
- 2021.10.28\_CapitalCube (2)
- 2021.10.28\_CapitalCube
- 2021.11.04\_HCWainwright (2)
- 2021.11.04\_HCWainwright
- 2021.11.04\_JonesTrading
- 2021.11.11\_HCWainwright (2)
- 2021.11.11\_HCWainwright
- 2021.11.11\_MaximGroup (2)
- 2021.11.11\_MaximGroup
- 2021.12.03\_CFRA
- 2021.12.21\_JonesTrading
- 2021.12.25\_CFRA
- 2022.01.07\_CapitalCube (2)
- 2022.01.07\_CapitalCube
- 2022.01.11\_HCWainwright (2)
- 2022.01.11\_HCWainwright
- 2022.01.28\_CFRA Quantitative Stock Report
- 2022.02.02\_MaximGroup
- 2022.02.10\_JonesTrading
- 2022.02.10\_MaximGroup
- 2022.02.11\_MaximGroup
- 2022.03.01\_HCWainwright

**Exhibit-1**  
**Documents and Other Information Considered**

- 2022.03.01\_JonesTrading
- 2022.03.31\_DisclosureInsight
- 2022.04.01\_UnivestSecurities
- 2022.04.05\_UnivestSecurities
- 2022.04.21\_CapitalCube
- 2022.04.26\_MaximGroup
- 2022.04.27\_UnivestSecurities
- 2022.05.05\_HCWainwright
- 2022.05.06\_UnivestSecurities
- 2022.06.01\_UnivestSecurities
- 2022.07.01\_DisclosureInsight
- 2022.07.15\_CapitalCube
- 2022.07.28\_UnivestSecurities
- 2022.07\_Marktfeld
- 2022.08.02\_DisclosureInsight (2)
- 2022.08.02\_DisclosureInsight
- 2022.08.03\_JonesResearch
- 2022.08.04\_HCWainwright (2)
- 2022.08.04\_HCWainwright
- 2022.08.04\_UnivestSecurities (2)
- 2022.08.04\_UnivestSecurities
- 2022.08.09\_Marktfeld
- 2022.08.18\_HCWainwright
- 2022.08.18\_JonesResearch
- 2022.08.18\_UnivestSecurities (2)
- 2022.08.18\_UnivestSecurities
- 2022.08.19\_HCWainwright
- 2022.08.25\_DisclosureInsight (2)
- 2022.08.25\_DisclosureInsight
- 2022.09.02\_DisclosureInsight (2)
- 2022.09.02\_DisclosureInsight
- 2022.09.28\_JonesResearch
- 2022.09\_Marktfeld
- 2022.10.17\_UnivestSecurities
- 2022.10.18\_CapitalCube
- 2022.11.02\_DisclosureInsight
- 2022.11.07\_JonesResearch
- 2022.11.08\_HCWainwright
- 2022.11.09\_UnivestSecurities
- 2022.11.29\_UnivestSecurities

**Exhibit-1**  
**Documents and Other Information Considered**

- 2022.12.01\_DisclosureInsight
- 2022\_Marktfeld
- 2022\_Marktfeld
- 2023.01.05\_CapitalCube
- 2023.01.19\_UnivestSecurities
- 2023.01.24\_HCWainwright
- 2023.01.24\_JonesResearch
- 2023.02.01\_DisclosureInsight
- 2023.02.28\_JonesResearch
- 2023.03.02\_DisclosureInsight
- 2023.03.06\_HCWainwright
- 2023.04.03\_CapitalCube
- 2023.05.01\_DisclosureInsight
- 2023.05.01\_JonesResearch
- 2023.05.09\_HCWainwright
- 2023.05.11\_HCWainwright
- 2023.06.01\_DisclosureInsight
- 2023.06.09\_JonesResearch
- 2023.06.13\_JonesResearch
- 2023.06.29\_JonesResearch
- 2023.07.05\_JonesResearch
- 2023.07.06\_HCWainwright
- 2023.07.19\_DisclosureInsight
- 2023.08.03\_JonesResearch
- 2023.08.04\_DisclosureInsight
- 2023.08.08\_HCWainwright
- 2023.09.12\_JonesResearch
- 2023.10.03\_JonesResearch
- 2023.10.04\_HCWainwright
- 2023.10.13\_JonesResearch

**SEC FILINGS**

- Cassava Sciences, Inc., Form 8-K, filed 19 October 2019.
- Cassava Sciences, Inc., Form 8-K, filed 5 December 2019.
- Cassava Sciences, Inc., Form DEF 14A, filed 26 March 2020.
- Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2019, filed 26 March 2020.
- Cassava Sciences, Inc., Form 8-K, filed 26 March 2020.
- Cassava Sciences, Inc., Form 8-K, filed 6 May 2020.



**Exhibit-1**  
**Documents and Other Information Considered**

- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 31 March 2020, filed 6 May 2020.
- Cassava Sciences, Inc., Form 8-K, filed 11 May 2020.
- Cassava Sciences, Inc., Form 8-K, filed 15 May 2020.
- Cassava Sciences, Inc., Form 8-K, filed 3 June 2020.
- Cassava Sciences, Inc., Form 8-K, filed 19 June 2020.
- Cassava Sciences, Inc., Form 8-K, filed 15 July 2020.
- Cassava Sciences, Inc., Form 8-K, filed 12 August 2020.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 June 2020, filed 12 August 2020.
- Cassava Sciences, Inc., Form 8-K, filed 1 September 2020.
- Cassava Sciences, Inc., Form 8-K, filed 10 September 2020.
- Cassava Sciences, Inc., Form 8-K, filed 14 September 2020.
- Cassava Sciences, Inc., Form 8-K, filed 4 November 2020.
- Cassava Sciences, Inc., Form 8-K, filed 9 November 2020.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 September 2020, filed 9 November 2020.
- Cassava Sciences, Inc., Form 8-K, filed 13 November 2020.
- Cassava Sciences, Inc., Form 8-K, filed 13 November 2020 (1).
- Cassava Sciences, Inc., Form 8-K, filed 11 December 2020.
- Cassava Sciences, Inc., Form 8-K, filed 6 January 2021.
- Cassava Sciences, Inc., Form 8-K, filed 8 February 2021.
- Cassava Sciences, Inc., Form S-3ASR, filed 10 February 2021.
- Cassava Sciences, Inc., Form 8-K, filed 12 February 2021.
- Cassava Sciences, Inc., Form 8-K, filed 11 March 2021.
- Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2020, filed 23 March 2021.
- Cassava Sciences, Inc., Form 8-K, filed 23 March 2021.
- Cassava Sciences, Inc., Form DEF 14A, filed 31 March 2021.
- Cassava Sciences, Inc., Form 8-K, filed 21 April 2021.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 31 March 2021, filed 29 April 2021.
- Cassava Sciences, Inc., Form 8-K, filed 6 May 2021.
- Cassava Sciences, Inc., Form 8-K, filed 21 June 2021.
- Cassava Sciences, Inc., Form 8-K, filed 3 August 2021.
- Cassava Sciences, Inc., Form 8-K, filed 3 August 2021(1).
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 June 2021, filed 4 August 2021.
- Cassava Sciences, Inc., Form 8-K, filed 10 November 2021.

**Exhibit-1**  
**Documents and Other Information Considered**

- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 September 2021, filed 15 November 2021.
- Cassava Sciences, Inc., Form 8-K, filed 6 January 2022.
- Cassava Sciences, Inc., Form 8-K, filed 28 February 2022.
- Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2021, filed 1 March 2022.
- Cassava Sciences, Inc., Form DEF 14A, filed 24 March 2022.
- Cassava Sciences, Inc., Form 8-K, filed 26 April 2022.
- Cassava Sciences, Inc., Form 8-K, filed 5 May 2022.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 31 March 2022, filed 5 May 2022.
- Cassava Sciences, Inc., Form 8-K, filed 9 May 2022.
- Cassava Sciences, Inc., Form 8-K, filed 3 August 2022.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 June 2022, filed 4 August 2022.
- Cassava Sciences, Inc., Form 8-K, filed 23 September 2023.
- Cassava Sciences, Inc., Form 8-K, filed 27 October 2022.
- Cassava Sciences, Inc., Form 8-K, filed 3 November 2022.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 September 2022, filed 7 November 2022.
- Cassava Sciences, Inc., Form 8-K, filed 7 November 2022.
- Cassava Sciences, Inc., Form 8-K, filed 22 November 2022.
- Cassava Sciences, Inc., Form 8-K, filed 22 December 2022.
- Cassava Sciences, Inc., Form 8-K, filed 24 January 2023.
- Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2022, filed 28 February 2023.
- Cassava Sciences, Inc., Form 8-K, filed 28 February 2023.
- Cassava Sciences, Inc., Form 8-K, filed 10 March 2023.
- Cassava Sciences, Inc., Form 8-K, filed 17 March 2023.
- Cassava Sciences, Inc., Form DEF 14A, filed 27 March 2023.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 31 March 2023, filed 1 May 2023.
- Cassava Sciences, Inc., Form 8-K, filed 1 May 2023.
- Cassava Sciences, Inc., Form 8-K, filed 1 May 2023(1).
- Cassava Sciences, Inc., Form S-3ASR, filed 1 May 2023.
- Cassava Sciences, Inc., Form 8-K, filed 8 May 2023.
- Cassava Sciences, Inc., Form 8-K, 5 July 2023.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 June 2023, filed 3 August 2023.
- Cassava Sciences, Inc., Form 8-K, filed 3 August 2023.

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**Documents and Other Information Considered**

- Cassava Sciences, Inc., Form 8-K, filed 13 September 2023.
- Cassava Sciences, Inc., Form 8-K, filed 7 November 2023.
- Cassava Sciences, Inc., Form 10-Q for the quarterly period ended 30 September 2023, filed 7 November 2023.
- Cassava Sciences, Inc., Form 8-K, filed 11 December 2023.
- Cassava Sciences, Inc., Form 8-K, filed 12 December 2023.
- Cassava Sciences, Inc., Form 10-K for the fiscal year ended 31 December 2023, filed 28 February 2024.

**CONFERENCE CALL TRANSCRIPTS**

- “Cassava Sciences Inc at Raymond James Human Health Innovation Conference (Virtual),” *Refinitiv Eikon*, conference call, 22 June 2021.
- “Q2 2021 Earnings Call,” *Bloomberg*, conference call, 3 August 2021.
- “Cassava Sciences Inc at B Riley Neuro & Ophthalmology Conference (Virtual),” *Refinitiv Eikon*, conference call, 27 April 2022.
- “Cassava Sciences Inc at H C Wainwright Global Investment Conference (Virtual),” *Refinitiv Eikon*, conference call, 13 September 2022.
- “Cassava Sciences Inc at Jefferies Healthcare Conference,” *Refinitiv Eikon*, conference call, 8 June 2023.

**ACADEMIC AND PROFESSIONAL LITERATURE**

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- Brennan, Michael, Narasimhan Jegadeesh, and Bhaskaran Swaminathan, “Investment Analysis and the Adjustment of Stock Prices to Common Information,” *The Review of Financial Studies*, vol. 6, no. 4, 1993.
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- Chen, Yong, Bryan Kelly, and Wei Wu, “Sophisticated Investors and Market Efficiency: Evidence from a Natural Experiment,” *Journal of Financial Economics*, vol. 138, no. 2, 2020.
- Cho, Joonhyuk, Manish Singh, and Andrew Lo, “How Does News Affect Biopharma Stock Prices?: An Event Study,” *PLoS One*, 26 January 2024.
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**Documents and Other Information Considered**

- Gold, Kevin, Eric Korman, and Ahmer Nabi, “Federal Securities Acts and Areas of Expert Analysis,” Chapter 27 of the *Litigation Services Handbook: The Role of the Financial Expert*, 6<sup>th</sup> ed., edited by Roman Weil, Daniel Lentz, and Elizabeth Evans, John Wiley & Sons, Inc., 2017.
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- Tabak, David and Frederick Dunbar, “Materiality and Magnitude: Event Studies in the Courtroom,” Chapter 19 of the *Litigation Services Handbook: The Role of the Financial Expert*, 3<sup>rd</sup> ed., edited by Roman Weil, Michael Wagner, and Peter Frank, John Wiley & Sons, Inc., 2001.
- Villanueva, Miguel and Steven Feinstein, “Stock Price Reactivity to Earnings Announcements: The Role of the Cammer/Krogman Factors,” *Review of Quantitative Finance and Accounting*, vol. 57, no. 1, 2021.

**DATA AND DATABASES**

- Bloomberg
- CRSP (Center for Research in Security Prices)
- EDGAR

**Exhibit-1**  
**Documents and Other Information Considered**

- Factiva
- Federal Reserve Economic Data
- OptionMetrics
- Refinitiv Eikon / LSEG Workspace
- S&P Global

**LEGAL CASES**

- *Amgen Inc. v. Connecticut Retirement Plans and Trust Funds*, 568 U.S. 455 (2013).
- *Basic, Inc. v. Levinson*, 485 U.S. 224 (1988).
- *Cammer v. Bloom*, 711 F. Supp. 1264 (D.N.J. 1989).
- *Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258 (2014).
- *Krogman v. Sterritt*, 202 F.R.D. 467 (N.D. Tex. 2001).
- *Unger v. Amedisys, Inc.*, 401 F.3d 316 (5<sup>th</sup> Cir. 2005).
- *Waggoner v. Barclays PLC*, 875 F.3d 79 (2d Cir. 2017).

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- 17 CFR §229.201.
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- Brief of Testifying Economists as *Amici Curiae* in Support of Respondent, *Halliburton Co. and David Lesar v. Erica P. John Fund, Inc.*, Case No. 13-317 (U.S.), 5 February 2014.
- <https://www.cassavasciences.com/investor-relations>.
- “Notable Tuesday Option Activity: SAVA, NWBI, MTCH,” BNK Invest Inc., 2 February 2021 3:28PM accessed through <https://www.nasdaq.com/articles/notable-tuesday-option-activity%3A-sava-nwbi-mtch-2021-02-02>.
- “Notable Wednesday Option Activity: IGT, PLUG, SAVA,” BNK Invest Inc., 17 March 2021 3:33PM accessed through <https://www.nasdaq.com/articles/notable-wednesday-option-activity%3A-igt-plug-sava-2021-03-17>.
- “Notable Monday Option Activity: OMF, SAVA, WSC,” BNK Invest Inc., 9 January 2023 3:30PM accessed through <https://www.nasdaq.com/articles/notable-monday-option-activity%3A-omf-sava-wsc>.
- “Noteworthy Friday Option Activity: GM, ATGE, SAVA,” BNK Invest Inc., 29 September 2023 3:26PM accessed through <https://www.nasdaq.com/articles/noteworthy-friday-option-activity%3A-gm-atge-sava>.
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**Exhibit-1**  
**Documents and Other Information Considered**

- “Revisions to the Eligibility Requirements for Primary Securities Offerings on Forms S-3 and F-3,” SEC Release No. 33-8812, 20 June 2007.
- “Revisions to the Eligibility Requirements for Primary Securities Offerings on Forms S-3 and F-3,” SEC Release No. 33-8878, 19 December 2007.
- Section 10(b) of the Securities Exchange Act of 1934.
- “Statement of Concern Regarding the Accuracy and Integrity of Clinical and Preclinical Data Supporting the Ongoing Clinical Evaluation of Compound PTI-125, Also Known As Simufilam,” Labaton Sucharow LLP, 18 August 2021.
- Any other documents cited in the report.



**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

Babson College  
Finance Division  
Babson Park, MA 02457  
781-239-5275  
Feinstein@Babson.edu

**EDUCATION**

- 1989 YALE UNIVERSITY  
Ph.D. in Economics (Concentration in Finance)
- 1986 YALE UNIVERSITY  
M.Phil. in Economics
- 1983 YALE UNIVERSITY  
M.A. in Economics
- 1981 POMONA COLLEGE  
B.A. in Economics (Phi Beta Kappa, *cum laude*)

**TEACHING EXPERIENCE**

- 1996 - present      BABSON COLLEGE  
Babson Park, MA  
Full-time Faculty, Finance Division  
Associate Professor (2000-present)  
Donald P. Babson Chair in Applied Investments (2002-2010)  
Faculty Director of the Babson College Fund (2002-2009)  
Director of the Stephen D. Cutler Investment Management Center (2002-2007)  
Assistant Professor (1996-2000)
- 1990 - 1995      BOSTON UNIVERSITY SCHOOL OF MANAGEMENT  
Boston, MA  
Full-time Faculty, Department of Finance
- 1993 - 1994      WASHINGTON UNIVERSITY, OLIN SCHOOL OF BUSINESS  
St. Louis, MO  
Visiting Assistant Professor, Department of Finance



**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

**BUSINESS EXPERIENCE**

2008 - present	CROWNINSHIELD FINANCIAL RESEARCH, INC. Brookline, MA President and Senior Expert
1996 - 2008	THE MICHEL-SHAKED GROUP Boston, MA Senior Expert (2001 - 2008) Affiliated Expert (1996 - 2001)
1987 - 1990	FEDERAL RESERVE BANK OF ATLANTA Economist

**PROFESSIONAL DESIGNATIONS**

1998    Awarded the Chartered Financial Analyst designation by the Association for Investment Management and Research.

**RESEARCH AWARDS**

1999    Greater Boston Real Estate Board/Real Estate Finance Association – Research Grant and Featured Speaker at Real Estate Finance Association Meetings.

**PAPERS AND PUBLICATIONS**

“Securities Litigation Event Studies in the Covid Volatility Regime,” (with Miguel Villanueva) *Journal of Forensic Economics*, vol. 30, no. 1, 2022.

“Stock Price Reactivity to Earnings Announcements: The Role of the *Cammer/Krogman* Factors,” (with Miguel Villanueva) *Review of Quantitative Finance and Accounting*, vol. 57, no. 1, 2021.

“What A Solar Eclipse Has To Do With Market Efficiency,” (with Daniel Bettencourt) *Law360.com*, 2017.

“Underestimation of Securities Fraud Aggregate Damages Due to Inter-Fund Trades,” (with Gang Hu, Mark Marcus, and Zann Ali) *Journal of Forensic Economics*, September 2013, Vol. 24, No. 2, 161-173.

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**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

“Lehman Equity Research Tipping: Evidence in the Stock Price Data,” Working paper, March 2010. Cited in *New York Times* May 19, 2012, and made available on the *New York Times* website.

“Distortion in Corporate Valuation: Implications of Capital Structure Changes,” (with Allen Michel and Jacob Oded) *Managerial Finance*, 2011, Vol. 37(8), 681-696.

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“Fraud-on-the-Market Theory: Is a Market Efficient?” (with Allen Michel and Israel Shaked) *American Bankruptcy Institute Journal*, May 2005.

“Valuation of Credit Guarantees,” (with Allen J. Michel and Israel Shaked) *Journal of Forensic Economics* 17(1), pp. 17-37, 2005.

“A Better Understanding of why NPV Undervalues Managerial Flexibility,” (with Diane Lander) in *The Engineering Economist*, 2002, Volume 47, Number 4.

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*A Future for Real Estate Futures: Potential Applications of Derivatives in Real Estate Investment and Finance* (with Linda Stoller). Monograph. Boston: Real Estate Finance Association / Greater Boston Real Estate Board, May 2000.

“The Risk Budget: Using Your Human Resources,” (with John Marthinsen and John Edmunds) *Risk Management*, April 2000.

“Scenario Learning: A Powerful Tool for the 21<sup>st</sup> Century Planner,” (with Jeffrey Ellis and Dennis Stearns) *The Journal of Financial Planning*, April 2000.

“Protecting Future Product Liability Claimants in the Case of Bankruptcy,” (with Allen Michel and Israel Shaked) *American Bankruptcy Institute Journal*, January 2000.

**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

“Measuring Risk with the Bodie Put When Stocks Exhibit Mean Reversion,” *The Journal of Risk*, Vol. 1, No. 3, 1999.

“Just-in-Time Mathematics: Integrating the Teaching of Finance Theory and Mathematics,” (with Gordon Prichett) *Primus*, Vol. IX, No. 2, June 1999.

*Atlanta Park Medical Center v. Hamlin Asset Management*. (with Natalie Taylor). Babson Case Collection, Harvard Business School Press, 1998.

“Dealing with Delta,” *Derivatives Week*, VII, No. 44, November 2, 1998.

“Expected Return in Option Pricing: A Non-Mathematical Explanation,” *Derivatives Week*, VII, No. 35, August 31, 1998.

“When Hedges Fail: The Put Paradox and its Solution,” *Derivatives Quarterly*, Vol. 4, No. 2, Winter 1997.

*Finance and Accounting for Project Management*. New York: American Management Association, 1996.

“International Investing,” in *Irwin’s Directory of Emerging Market Brokerages*. New York: Irwin, 1996.

“The Hull and White Implied Volatility,” Boston University Working Paper #92-51, 1992.

“Immunizing Against Interest Rate Risk Using the Macaulay Duration Statistic: An Assessment,” (with Don Smith) in *Financial Systems and Risk Management*, the proceedings of the US-Japan Forum on Financial Strategy in the 1990s, sponsored by Osaka Foundation of International Exchange and Boston University, August 1991.

“Covered Call Options: A Proposal to Ease LDC Debt,” (with Peter Abken) *Federal Reserve Bank of Atlanta Economic Review*, March/April 1990. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

“Forecasting Stock-Market Volatility Using Options on Index Futures,” *Federal Reserve Bank of Atlanta Economic Review*, May/June 1989. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

“The Black-Scholes Formula is Nearly Linear in Sigma for At-the-Money Options; Therefore Implied Volatilities from At-the-Money Options are Virtually Unbiased,” Federal Reserve Bank of Atlanta Working Paper #88-9, December 1988.

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**Steven P. Feinstein, Ph.D., CFA**

“The Effect of the ‘Triple Witching Hour’ on Stock Market Volatility,” (with William Goetzmann) *Federal Reserve Bank of Atlanta Economic Review*, September/October 1988. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

“Stock Market Volatility,” *Federal Reserve Bank of Atlanta Economic Review*, November/December 1987.

Book review of *In Who’s Interest: International Banking and American Foreign Policy*, by Benjamin J. Cohen, Yale University Press, in *Federal Reserve Bank of Atlanta Economic Review*, Summer 1987.

**PRESENTATIONS**

“Proving and Disproving Market Efficiency for Appraisal Hearings,” at the NACVA/CTI Business Valuation and Financial Litigation Super Conference, July 2023.

“SPAC Public Warrant Valuation Using Iterative Monte Carlo Simulation,” (with Ayussh Ahuja, Achraf Krafssi, and Dukalion Tsapalas) at the Financial Management Association Annual Meeting, October 2021.

“Stock Price Reactivity to Earnings Announcements: A Cross-Sectional Analysis of the *Cammer/Krogman* Factors,” (with Miguel Villanueva) at the Boston Area Finance Symposium, April 2018.

“Stock Price Reactivity to Earnings Announcements: A Cross-Sectional Analysis of the *Cammer/Krogman* Factors,” (with Miguel Villanueva) at the Eastern Finance Association Conference, April 2018.

“Determining the Defendant’s Ability to Pay,” at Taxpayers Against Fraud Education Fund Conference, October 2010.

“The Computation of Damages in Securities Fraud Cases,” at the Grant and Eisenhower Institutional Investor Conference, December 2002.

“The Role of the Financial Expert in Complex Litigation,” at the Financial Management Association Conference, October 2000.

“Entrepreneurial Incentives and Resource Allocation Among Corporate Venturing Initiatives,” (with Joel Shulman and U. Srinivasa Rangan), Babson Entrepreneurship Research Conference, May 2000.

**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

“Application of Real Options in Purchasing Strategies,” (with Juan Orozco), presented at the International Applied Business Research Conference, March 2000.

“A Future for Real Estate Futures,” (with Linda Stoller) at the Fairfield County chapter of the Real Estate Finance Association, November 1999, and at the Greater Boston Real Estate Board, November 2000.

“Atlanta Park Medical Center v. Hamlin Asset Management,” (with Natalie Taylor) at the 1999 convention of the North American Case Research Association.

“Using Future Worlds™ in the Financial Planning Process,” (with Jeffrey Ellis) at the Institute of Certified Financial Planners Masters Retreat, October 1999.

“Toward a Better Understanding of Real Options: A Weighted Average Discount Rate Approach,” at the 1999 Financial Management Association Conference, the 1999 European Financial Management Association Conference, and the 1999 Multinational Finance Society Conference.

“Just-In-Time Mathematics: Integrating the Teaching of Finance Theory and Mathematics,” (with Gordon Prichett) at the 1999 Financial Management Association Conference.

“Alternative Dow Investments for the Individual Investor: Diamonds, Synthetics, and the Real Thing,” at the 1999 Academy of Financial Services Convention.

“Evidence of Yield Burning in Municipal Refundings,” at Financial Management Association Convention, October 1997; Government Finance Officers Association, 1997; and Northeast Regional Convention of the National Association of State Treasurers, 1997.

“Teaching the Strong-Form Efficient Market Hypothesis,” at Conference on Classroom Experiments in the Teaching of Economics at University of Virginia, September 1995.

“Efficient Consolidation of Implied Standard Deviations,” (with Shaikh Hamid) at Midwest Finance Association, March 1995.

“A Test of Intertemporal Averaging of Implied Volatilities,” (with Shaikh Hamid) at Eastern Finance Association, April 1995.

“Taking Advantage of Volatility: Non-linear Forecasting and Options Strategies,” (with Hassan Ahmed) at Chicago Board of Trade / Chicago Board Options Exchange Conference on Risk Management, February 1992.

**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

“Immunizing Against Interest Rate Risk Using the Macaulay Duration Statistic: An Assessment,” (with Don Smith) at Japan-U.S. Conference on Financial Strategies in the 1990s, Osaka, Japan, August 1991.

“The Hull and White Implied Volatility,” at American Finance Association Convention, December 1990.

**REVIEWED ARTICLES AND BOOKS FOR:**

Harvard Business School Publishing  
Elsevier  
Journal of Economic Education  
Journal of Forensic Economics  
Journal of Risk  
Financial Review  
North American Case Research Association  
Financial Management  
Journal of Business  
Journal of Money, Credit and Banking  
Quarterly Review of Economics and Finance  
Blackwell  
Prentice Hall  
Southwestern Publishing

**COURSES TAUGHT**

Advanced Derivative Securities (MBA)  
Babson College Fund (Undergraduate and MBA)  
Capital Markets (MBA)  
Continuous-Time Finance (Doctoral)  
Corporate Finance (MBA and Executive)  
Corporate Financial Strategy (MBA)  
Cross-Functional Management (Integrated curriculum, Undergraduate) Equity Markets (MBA)  
Derivatives: Theory and Practice (MBA)  
Financial Reporting and Corporate Finance (MBA)  
Financial Management (MBA)  
Fixed Income Analysis (Undergraduate and MBA)  
Introduction to Derivative Securities (Executive)  
International Finance (Executive)  
Integrated Management (Undergraduate)  
Investments (MBA and Executive)

**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

Mod B: Decision Making and Applications, Finance stream (MBA)  
Options and Futures (Undergraduate)  
Risk Management (MBA)  
Portfolio Theory / Management Information Systems (Executive)  
Quantitative Methods for Investment Management (Undergraduate and MBA)  
Security Valuation (Undergraduate and MBA)

**TEACHING AWARDS**

Reid Teaching Award, Washington University, Olin School of Business, 1993-94.

**SELECT LIST OF MEDIA CITATIONS**

“Is Insider Trading Part of the Fabric?” by Gretchen Morgenson, *The New York Times*, May 19, 2012.

“Bankers Rigging Municipal Contract Bids Admit to Cover-Up Lies,” by William Selway and Martin Z. Braun, *Bloomberg Markets Magazine*, November 24, 2010.

“Hospital Move Presents Buy-Out Groups with New Risks,” by Francesco Guerra, Christopher Bowe, and Rebecca Knight, *Financial Times*, July 15, 2006.

“Funds of Knowledge Add Value,” by Rebecca Knight, *Financial Times*, March 12, 2006.

“City’s Financial Picture Worse Than Ever, Sanders Says,” by Matthew T. Hall, *San Diego Union-Tribune*, January 7, 2006.

“Downer: Stock Market Takes Another Dive,” by John Chesto, *Boston Herald*, July 23, 2002.

“Banks, Developers, Are Main Beneficiaries,” [editorial column] by Steven Feinstein, *The Boston Globe*, March 31, 2002, p. C4.

“Washington Investing: What Michael Saylor is Really Worth,” by Jerry Knight, *The Washington Post*, March 6, 2000.

“IBM Retools Pensions,” by Stephanie Armour, *USA Today*, May 4, 1999.

“L.A. MTA’s Law Firm Says Lissack Strategy Will be a Replay,” by Andrea Figler, *Bond Buyer*, September 30, 1998.

**Exhibit-2**  
**Curriculum Vitae**  
**Steven P. Feinstein, Ph.D., CFA**

“Fed Key Player in Rescue of Floundering Hedge Fund,” by Andrew Fraser, Associated Press, September 25, 1998.

“Top Banks Plan Bailout for Fund,” by Andrew Fraser, Associated Press, September 24, 1998.

“Clarion Call to the Small Investor,” by Jo-Ann Johnston, *The Boston Globe*, March 4, 1998.

“L.A. Authority Study Shows Rampant Yield Burning Abuse,” by Michael Stanton, *The Bond Buyer*, April 22, 1997.

“Dispute Over Yield Burning Dominates GFOA Session,” by Michael Stanton, *The Bond Buyer*, January 29, 1997.

“Men Behaving Badly (Yield Burning),” *Grants Municipal Bond Observer*, January 24, 1997.

“Municipal Bond Dealers Face Scrutiny,” by Peter Truell, *The New York Times*, December 17, 1996.

“Iowa Market Takes Stock of Presidential Candidates,” by Stanley W. Angrist, *The Wall Street Journal*, August 28, 1995.

“Looking for Clues in Options Prices,” by Sylvia Nasar, *The New York Times*, July 18, 1991.

“For Fed, A New Set of Tea Leaves,” by Sylvia Nasar, *The New York Times*, July 5, 1991.

**MEMBERSHIP IN PROFESSIONAL SOCIETIES**

American Finance Association  
CFA Society Boston  
Chartered Financial Analyst Institute  
Financial Management Association  
Foundation for Advancement of Research in Financial Economics (founding member)  
National Association of Forensic Economics  
North American Case Research Association



**Exhibit-3**

**Steven P. Feinstein, Ph.D., CFA  
Testimony Provided in the Last Four Years**

In Re Grupo Televisa Securities Litigation  
Civil Action No. 1:18-cv-01979-LLS  
United States District Court  
Southern District Of New York  
Deposition Testimony  
April 2020

In Re Blackberry Limited Securities Litigation  
Case No. 13-cv-07060-CM-KHP  
United States District Court  
Southern District Of New York  
Deposition Testimony  
July 2018  
Deposition Testimony  
July 2020

In Re Johnson & Johnson Securities Litigation  
Civil Action No. 3:18-cv-01833-FLW-TJB  
United States District Court  
District of New Jersey  
Deposition Testimony  
October 2020

In Re Envision Healthcare Corporation Securities Litigation  
Civil Action No. 3:17-cv-01112  
United States District Court  
Middle District of Tennessee  
Nashville Division  
Deposition Testimony  
January 2021

In Re Novo Nordisk Securities Litigation  
Civil Action No. 3:17-cv-209-BRM-LHG  
United States District Court  
District of New Jersey  
Deposition Testimony  
February 2021

**Exhibit-3**

**Steven P. Feinstein, Ph.D., CFA  
Testimony Provided in the Last Four Years**

In Re Jeld-Wen Holding, Inc. Securities Litigation  
Civil Action No. 3:20-cv-00112-JAG  
United States District Court  
Eastern District of Virginia  
Richmond Division  
Deposition Testimony  
January 2021  
Deposition Testimony  
February 2021

In Re Vale S.A. Securities Litigation  
Civil Action No. 19-cv-526-RJD-SJB  
United States District Court  
Eastern District of New York  
Deposition Testimony  
March 2021  
Deposition Testimony  
September 2023

In Re Endo International PLC Securities Litigation  
Case No. 2:17-cv-05114-MMB  
United States District Court  
Eastern District of Pennsylvania  
Deposition Testimony  
July 2021

In Re McKesson Corporation Securities Litigation  
Master File No. 3:18-cv-06525-CRB  
United States District Court  
Northern District of California  
Deposition Testimony  
August 2021

In Re Perrigo Company PLC Securities Litigation  
Master File No. 2:18-cv-02074  
United States District Court  
District of New Jersey  
Deposition Testimony  
October 2021

**Exhibit-3**

**Steven P. Feinstein, Ph.D., CFA**  
**Testimony Provided in the Last Four Years**

In Re Wells Fargo & Company Securities Litigation  
Master File No. 3:18-cv-03948-JD  
United States District Court  
Northern District of California  
Deposition Testimony  
November 2021

In Re Microchip Technology, Inc. Securities Litigation  
Case No. 2:18-cv-02914-JJT  
United States District Court  
District of Arizona  
Deposition Testimony  
October 2020  
Deposition Testimony  
January 2022

In Re Super Micro Computer, Inc. Securities Litigation  
Master File No. 4:18-cv-00838-JST  
United States District Court  
Northern District of California  
Deposition Testimony  
January 2022

In Re Cardinal Health, Inc. Securities Litigation  
Master File No. 2:19-cv-03347  
United States District Court  
Southern District of Ohio  
Eastern Division  
Deposition Testimony  
May 2022

In Re Gannett Co., Inc. ERISA Litigation  
Civil Action No. 1:18-cv-00325-AJT-JFA  
United States District Court  
Eastern District of Virginia  
Alexandria Division  
Deposition Testimony  
May 2022

**Exhibit-3**

**Steven P. Feinstein, Ph.D., CFA**  
**Testimony Provided in the Last Four Years**

In Re Apple Inc. Securities Litigation  
Case No. 4:19-cv-02033-YGR  
United States District Court  
Northern District of California  
Oakland Division  
Deposition Testimony  
June 2021  
Deposition Testimony  
July 2022

In Re Sealed Air Co., Securities Litigation  
Case No. 1:19-cv-10161-LLS  
United States District Court  
Southern District of New York  
Deposition Testimony  
July 2022

In Re Aegean Marine Petroleum Network, Inc. Securities Litigation  
Case No. 18 Civ. 4993 (NRB)  
United States District Court  
Southern District of New York  
Deposition Testimony  
November 2022

In Re Synchrony Financial Securities Litigation  
Case No. 3:18-cv-01818-VAB  
United States District Court  
District of Connecticut  
Deposition Testimony  
December 2022

In Re Cabot Oil & Gas Corporation Securities Litigation  
Case No. 4:21-cv-02045  
United States District Court  
Southern District of Texas  
Deposition Testimony  
June 2023

**Exhibit-3**

**Steven P. Feinstein, Ph.D., CFA**  
**Testimony Provided in the Last Four Years**

In Re Mallinckrodt Public Limited Company Securities Litigation  
Civil Action No. 20-10100(AET)(TJB)  
United States District Court  
District of New Jersey  
Deposition Testimony  
July 2023

In re Acadia Pharmaceuticals Inc. Securities Litigation  
Case No. 3:21-cv-00762-WQH-MSB  
United States District Court  
Southern District of California  
Deposition Testimony  
October 2023

In re Kirkland Lake Gold Ltd. Securities Litigation  
Case No. 20-cv-04953  
United States District Court  
Southern District of New York  
Deposition Testimony  
March 2023  
Deposition Testimony  
October 2023

In re Vale S.A. Securities Litigation  
Case No. 19-cv-526-RJD-SJB  
United States District Court  
Eastern District of New York  
Deposition Testimony  
October 2023

In re Alta Mesa Resources, Inc.  
Case No. 4:19-cv-00957  
United States District Court  
Southern District of Texas  
Houston Division  
Deposition Testimony  
November 2023

**Exhibit-3**

**Steven P. Feinstein, Ph.D., CFA**  
**Testimony Provided in the Last Four Years**

In Re Ripple Labs Inc. Litigation  
Case No. 4:18-cv-06753-PJH  
United States District Court  
Northern District of California  
Deposition Testimony  
January 2023  
Deposition Testimony  
December 2023

In Re EQT Corporation Securities Litigation  
Master File No. 2:19-cv-00754-MPK  
United States District Court  
Western District of Pennsylvania  
Deposition Testimony  
May 2021  
Deposition Testimony  
July 2021  
Deposition Testimony  
July 2023  
Deposition Testimony  
March 2024

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
9/12/2019	\$1.22	\$1.20	\$1.24	162,687	
9/13/2019	\$1.22	\$1.22	\$1.23	256,165	-0.07%
9/16/2019	\$1.27	\$1.25	\$1.27	224,439	4.02%
9/17/2019	\$1.30	\$1.28	\$1.30	75,834	2.33%
9/18/2019	\$1.27	\$1.28	\$1.30	72,570	-2.33%
9/19/2019	\$1.30	\$1.26	\$1.30	62,750	2.33%
9/20/2019	\$1.19	\$1.23	\$1.27	169,303	-8.84%
9/23/2019	\$1.25	\$1.22	\$1.25	44,895	4.92%
9/24/2019	\$1.22	\$1.22	\$1.25	60,458	-2.43%
9/25/2019	\$1.27	\$1.27	\$1.29	147,386	4.02%
9/26/2019	\$1.26	\$1.25	\$1.28	131,680	-0.79%
9/27/2019	\$1.21	\$1.21	\$1.22	353,419	-4.05%
9/30/2019	\$1.20	\$1.20	\$1.22	31,563	-0.83%
10/1/2019	\$1.23	\$1.22	\$1.25	121,630	2.47%
10/2/2019	\$1.23	\$1.23	\$1.26	84,462	0.00%
10/3/2019	\$1.21	\$1.22	\$1.24	36,566	-1.64%
10/4/2019	\$1.26	\$1.25	\$1.27	97,595	3.86%
10/7/2019	\$1.24	\$1.24	\$1.26	81,059	-1.41%
10/8/2019	\$1.23	\$1.23	\$1.24	33,631	-0.81%
10/9/2019	\$1.21	\$1.21	\$1.22	22,173	-1.64%
10/10/2019	\$1.23	\$1.23	\$1.26	51,188	1.64%
10/11/2019	\$1.26	\$1.25	\$1.26	16,202	2.41%
10/14/2019	\$1.26	\$1.24	\$1.26	16,763	0.00%
10/15/2019	\$1.27	\$1.25	\$1.27	29,592	0.79%
10/16/2019	\$1.24	\$1.24	\$1.26	33,236	-2.39%
10/17/2019	\$1.23	\$1.22	\$1.25	42,324	-0.81%
10/18/2019	\$1.24	\$1.22	\$1.27	64,799	0.81%
10/21/2019	\$1.18	\$1.18	\$1.19	83,932	-4.96%
10/22/2019	\$1.10	\$1.09	\$1.10	147,571	-7.02%
10/23/2019	\$1.20	\$1.19	\$1.22	96,319	8.55%
10/24/2019	\$1.27	\$1.22	\$1.27	163,288	5.82%
10/25/2019	\$1.30	\$1.31	\$1.33	189,246	2.33%
10/28/2019	\$1.27	\$1.27	\$1.30	121,139	-2.33%
10/29/2019	\$1.34	\$1.32	\$1.34	75,795	5.37%
10/30/2019	\$1.33	\$1.31	\$1.34	60,901	-0.57%
10/31/2019	\$1.31	\$1.31	\$1.33	46,306	-1.70%
11/1/2019	\$1.31	\$1.31	\$1.35	130,867	0.00%
11/4/2019	\$1.29	\$1.29	\$1.31	151,187	-1.54%
11/5/2019	\$1.29	\$1.29	\$1.31	31,250	0.00%
11/6/2019	\$1.32	\$1.31	\$1.33	42,416	2.30%
11/7/2019	\$1.30	\$1.30	\$1.31	29,335	-1.53%
11/8/2019	\$1.27	\$1.26	\$1.28	82,586	-2.33%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
11/11/2019	\$1.26	\$1.24	\$1.26	42,321	-0.79%
11/12/2019	\$1.25	\$1.24	\$1.25	27,688	-0.76%
11/13/2019	\$1.25	\$1.24	\$1.25	21,641	-0.05%
11/14/2019	\$1.24	\$1.24	\$1.26	66,943	-0.80%
11/15/2019	\$1.24	\$1.23	\$1.24	92,408	0.00%
11/18/2019	\$1.24	\$1.22	\$1.25	45,081	-0.11%
11/19/2019	\$1.28	\$1.26	\$1.28	33,540	3.29%
11/20/2019	\$1.27	\$1.29	\$1.30	77,333	-0.78%
11/21/2019	\$1.28	\$1.27	\$1.30	37,428	0.78%
11/22/2019	\$1.32	\$1.32	\$1.33	81,776	3.08%
11/25/2019	\$1.41	\$1.41	\$1.43	298,462	6.60%
11/26/2019	\$1.41	\$1.41	\$1.42	155,020	0.00%
11/27/2019	\$1.44	\$1.43	\$1.44	146,873	2.11%
11/29/2019	\$1.48	\$1.47	\$1.48	203,896	2.73%
12/2/2019	\$1.71	\$1.71	\$1.72	1,615,367	14.45%
12/3/2019	\$1.70	\$1.70	\$1.71	1,132,970	-0.59%
12/4/2019	\$1.77	\$1.76	\$1.77	935,285	4.04%
12/5/2019	\$1.80	\$1.79	\$1.80	1,104,711	1.68%
12/6/2019	\$1.79	\$1.77	\$1.78	34,665,456	-0.56%
12/9/2019	\$1.67	\$1.66	\$1.67	2,474,333	-6.94%
12/10/2019	\$1.65	\$1.64	\$1.65	1,807,230	-1.20%
12/11/2019	\$1.70	\$1.68	\$1.70	1,106,452	2.99%
12/12/2019	\$1.88	\$1.87	\$1.88	1,276,502	10.06%
12/13/2019	\$1.88	\$1.87	\$1.88	1,308,454	0.00%
12/16/2019	\$1.85	\$1.85	\$1.87	796,061	-1.61%
12/17/2019	\$1.77	\$1.77	\$1.79	506,941	-4.42%
12/18/2019	\$1.68	\$1.67	\$1.68	618,664	-5.22%
12/19/2019	\$1.90	\$1.89	\$1.92	1,224,452	12.31%
12/20/2019	\$2.25	\$2.20	\$2.22	5,458,078	16.91%
12/23/2019	\$3.59	\$3.55	\$3.59	31,785,373	46.72%
12/24/2019	\$4.55	\$4.54	\$4.55	19,719,758	23.70%
12/26/2019	\$4.03	\$4.03	\$4.04	9,237,510	-12.14%
12/27/2019	\$5.21	\$5.19	\$5.20	12,720,273	25.68%
12/30/2019	\$6.12	\$6.06	\$6.11	18,886,685	16.10%
12/31/2019	\$5.20	\$5.14	\$5.20	6,927,421	-16.29%
1/2/2020	\$7.20	\$7.12	\$7.15	16,844,236	32.54%
1/3/2020	\$9.65	\$9.64	\$9.65	36,424,484	29.29%
1/6/2020	\$8.63	\$8.58	\$8.63	20,903,013	-11.17%
1/7/2020	\$7.70	\$7.65	\$7.70	11,105,521	-11.40%
1/8/2020	\$8.60	\$8.58	\$8.60	8,417,873	11.05%
1/9/2020	\$7.93	\$7.85	\$7.94	3,428,654	-8.11%
1/10/2020	\$8.15	\$8.05	\$8.15	3,797,633	2.74%



**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
1/13/2020	\$6.99	\$6.95	\$6.96	4,250,455	-15.35%
1/14/2020	\$7.52	\$7.40	\$7.51	3,379,865	7.31%
1/15/2020	\$8.45	\$8.40	\$8.46	3,827,309	11.66%
1/16/2020	\$8.63	\$8.60	\$8.64	3,275,904	2.11%
1/17/2020	\$8.25	\$8.12	\$8.24	2,725,876	-4.50%
1/21/2020	\$7.89	\$7.89	\$7.97	1,425,210	-4.46%
1/22/2020	\$8.10	\$8.10	\$8.11	1,882,684	2.63%
1/23/2020	\$7.73	\$7.73	\$7.75	1,121,799	-4.68%
1/24/2020	\$7.18	\$7.17	\$7.18	1,493,793	-7.45%
1/27/2020	\$7.15	\$7.09	\$7.17	1,263,377	-0.35%
1/28/2020	\$8.66	\$8.65	\$8.68	10,339,753	19.16%
1/29/2020	\$8.29	\$8.29	\$8.32	2,173,352	-4.37%
1/30/2020	\$8.03	\$8.03	\$8.06	1,616,747	-3.19%
1/31/2020	\$8.15	\$8.10	\$8.14	1,054,539	1.48%
2/3/2020	\$8.12	\$8.07	\$8.12	3,721,061	-0.37%
2/4/2020	\$8.35	\$8.34	\$8.43	3,798,073	2.79%
2/5/2020	\$8.46	\$8.42	\$8.47	1,067,113	1.31%
2/6/2020	\$8.25	\$8.25	\$8.28	507,986	-2.51%
2/7/2020	\$7.90	\$7.91	\$7.94	1,164,758	-4.34%
2/10/2020	\$7.88	\$7.84	\$7.89	856,636	-0.25%
2/11/2020	\$7.85	\$7.80	\$7.85	2,009,239	-0.38%
2/12/2020	\$7.84	\$7.82	\$7.85	851,739	-0.13%
2/13/2020	\$7.73	\$7.73	\$7.76	503,277	-1.41%
2/14/2020	\$7.26	\$7.26	\$7.29	1,483,189	-6.27%
2/18/2020	\$7.20	\$7.14	\$7.19	711,467	-0.83%
2/19/2020	\$6.83	\$6.83	\$6.88	1,168,214	-5.28%
2/20/2020	\$7.06	\$7.06	\$7.09	918,253	3.31%
2/21/2020	\$7.62	\$7.60	\$7.62	1,640,314	7.63%
2/24/2020	\$7.37	\$7.31	\$7.35	830,915	-3.34%
2/25/2020	\$6.85	\$6.83	\$6.85	1,100,011	-7.32%
2/26/2020	\$6.43	\$6.36	\$6.41	1,145,198	-6.33%
2/27/2020	\$5.94	\$5.91	\$5.94	1,033,371	-7.93%
2/28/2020	\$5.61	\$5.60	\$5.70	1,444,032	-5.72%
3/2/2020	\$6.47	\$6.46	\$6.47	798,816	14.26%
3/3/2020	\$6.18	\$6.13	\$6.18	536,607	-4.59%
3/4/2020	\$6.01	\$5.98	\$6.01	705,854	-2.79%
3/5/2020	\$6.12	\$6.06	\$6.12	374,358	1.81%
3/6/2020	\$6.04	\$6.04	\$6.09	728,895	-1.32%
3/9/2020	\$4.86	\$4.85	\$4.90	1,142,547	-21.74%
3/10/2020	\$4.98	\$4.94	\$4.98	919,941	2.44%
3/11/2020	\$4.24	\$4.20	\$4.23	1,122,573	-16.09%
3/12/2020	\$3.26	\$3.23	\$3.27	1,259,606	-26.28%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
3/13/2020	\$4.13	\$4.13	\$4.15	1,073,386	23.66%
3/16/2020	\$3.98	\$3.93	\$3.98	827,778	-3.70%
3/17/2020	\$3.66	\$3.77	\$3.78	958,222	-8.38%
3/18/2020	\$3.80	\$3.82	\$3.89	700,364	3.75%
3/19/2020	\$4.23	\$4.24	\$4.27	1,029,617	10.72%
3/20/2020	\$3.87	\$3.85	\$3.89	699,183	-8.89%
3/23/2020	\$4.16	\$4.09	\$4.16	470,474	7.23%
3/24/2020	\$4.36	\$4.36	\$4.38	524,135	4.70%
3/25/2020	\$4.15	\$4.16	\$4.17	721,150	-4.94%
3/26/2020	\$4.13	\$4.12	\$4.16	1,113,142	-0.48%
3/27/2020	\$4.26	\$4.24	\$4.26	653,693	3.10%
3/30/2020	\$4.04	\$4.04	\$4.05	677,236	-5.30%
3/31/2020	\$4.11	\$4.11	\$4.13	491,591	1.72%
4/1/2020	\$4.21	\$4.21	\$4.22	577,860	2.40%
4/2/2020	\$4.82	\$4.82	\$4.83	1,191,541	13.53%
4/3/2020	\$4.80	\$4.80	\$4.83	469,809	-0.42%
4/6/2020	\$4.82	\$4.79	\$4.82	467,241	0.42%
4/7/2020	\$4.64	\$4.64	\$4.67	436,782	-3.81%
4/8/2020	\$5.04	\$5.04	\$5.07	629,234	8.27%
4/9/2020	\$4.81	\$4.83	\$4.84	607,459	-4.67%
4/13/2020	\$5.50	\$5.50	\$5.51	788,443	13.41%
4/14/2020	\$5.66	\$5.66	\$5.69	700,756	2.87%
4/15/2020	\$5.50	\$5.50	\$5.53	639,856	-2.87%
4/16/2020	\$5.67	\$5.68	\$5.69	496,756	3.04%
4/17/2020	\$5.74	\$5.70	\$5.74	411,950	1.23%
4/20/2020	\$5.46	\$5.45	\$5.46	763,405	-5.00%
4/21/2020	\$5.38	\$5.38	\$5.41	491,097	-1.48%
4/22/2020	\$5.54	\$5.54	\$5.56	476,965	2.93%
4/23/2020	\$7.31	\$7.29	\$7.32	5,432,741	27.72%
4/24/2020	\$7.12	\$7.10	\$7.12	1,480,827	-2.63%
4/27/2020	\$7.37	\$7.37	\$7.44	1,425,138	3.45%
4/28/2020	\$7.41	\$7.39	\$7.40	694,608	0.54%
4/29/2020	\$7.99	\$7.95	\$7.98	1,361,630	7.54%
4/30/2020	\$7.64	\$7.63	\$7.64	657,381	-4.54%
5/1/2020	\$7.49	\$7.44	\$7.50	549,338	-1.92%
5/4/2020	\$7.88	\$7.87	\$7.88	595,061	5.08%
5/5/2020	\$7.85	\$7.83	\$7.86	606,832	-0.38%
5/6/2020	\$7.63	\$7.63	\$7.65	966,737	-2.84%
5/7/2020	\$7.81	\$7.81	\$7.86	689,236	2.33%
5/8/2020	\$9.01	\$9.00	\$9.04	3,827,945	14.29%
5/11/2020	\$9.64	\$9.64	\$9.65	1,982,454	6.76%
5/12/2020	\$8.28	\$8.28	\$8.29	1,804,990	-15.21%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
5/13/2020	\$7.77	\$7.77	\$7.79	1,994,861	-6.36%
5/14/2020	\$8.11	\$8.11	\$8.12	1,428,360	4.28%
5/15/2020	\$2.12	\$2.11	\$2.12	47,428,338	-134.17%
5/18/2020	\$2.30	\$2.29	\$2.30	14,976,814	8.15%
5/19/2020	\$2.19	\$2.18	\$2.19	5,485,374	-4.90%
5/20/2020	\$2.12	\$2.11	\$2.12	3,573,711	-3.25%
5/21/2020	\$2.04	\$2.04	\$2.05	2,485,344	-3.85%
5/22/2020	\$2.13	\$2.12	\$2.13	2,503,175	4.32%
5/26/2020	\$2.16	\$2.16	\$2.17	2,445,910	1.40%
5/27/2020	\$2.16	\$2.16	\$2.17	1,719,597	0.00%
5/28/2020	\$2.11	\$2.11	\$2.12	1,267,487	-2.34%
5/29/2020	\$2.14	\$2.12	\$2.14	926,910	1.41%
6/1/2020	\$2.11	\$2.11	\$2.12	1,081,180	-1.41%
6/2/2020	\$2.04	\$2.04	\$2.06	1,345,132	-3.37%
6/3/2020	\$3.42	\$3.41	\$3.42	79,503,959	51.67%
6/4/2020	\$2.66	\$2.65	\$2.66	10,303,669	-25.13%
6/5/2020	\$2.59	\$2.58	\$2.59	4,073,743	-2.67%
6/8/2020	\$2.59	\$2.58	\$2.59	2,217,818	0.00%
6/9/2020	\$2.79	\$2.78	\$2.79	3,780,838	7.44%
6/10/2020	\$2.73	\$2.73	\$2.75	1,715,181	-2.17%
6/11/2020	\$2.55	\$2.55	\$2.57	1,727,666	-6.82%
6/12/2020	\$2.42	\$2.43	\$2.44	1,914,954	-5.23%
6/15/2020	\$2.57	\$2.57	\$2.58	1,920,676	6.01%
6/16/2020	\$2.72	\$2.71	\$2.72	2,815,559	5.67%
6/17/2020	\$2.63	\$2.62	\$2.64	997,375	-3.36%
6/18/2020	\$2.63	\$2.63	\$2.66	952,971	0.00%
6/19/2020	\$2.64	\$2.66	\$2.67	1,472,476	0.38%
6/22/2020	\$2.67	\$2.67	\$2.68	672,291	1.13%
6/23/2020	\$2.80	\$2.80	\$2.81	1,064,365	4.75%
6/24/2020	\$3.20	\$3.19	\$3.20	5,474,186	13.35%
6/25/2020	\$3.07	\$3.06	\$3.07	1,954,521	-4.15%
6/26/2020	\$3.36	\$3.35	\$3.36	6,016,203	9.03%
6/29/2020	\$3.10	\$3.09	\$3.10	2,280,168	-8.05%
6/30/2020	\$3.08	\$3.06	\$3.07	862,237	-0.65%
7/1/2020	\$2.99	\$2.98	\$2.99	1,132,148	-2.97%
7/2/2020	\$2.86	\$2.86	\$2.88	915,890	-4.45%
7/6/2020	\$2.97	\$2.97	\$2.98	972,838	3.77%
7/7/2020	\$3.12	\$3.11	\$3.12	1,240,639	4.93%
7/8/2020	\$3.13	\$3.12	\$3.13	1,658,555	0.16%
7/9/2020	\$3.06	\$3.05	\$3.06	2,099,992	-2.10%
7/10/2020	\$3.34	\$3.33	\$3.34	3,040,293	8.61%
7/13/2020	\$3.64	\$3.62	\$3.64	11,158,484	8.75%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
7/14/2020	\$3.65	\$3.63	\$3.64	3,401,998	0.27%
7/15/2020	\$3.39	\$3.38	\$3.39	2,676,140	-7.39%
7/16/2020	\$3.41	\$3.40	\$3.41	1,364,747	0.59%
7/17/2020	\$3.30	\$3.29	\$3.30	1,265,968	-3.28%
7/20/2020	\$3.28	\$3.28	\$3.29	980,914	-0.61%
7/21/2020	\$3.42	\$3.41	\$3.42	1,100,163	4.18%
7/22/2020	\$3.36	\$3.35	\$3.36	769,977	-1.77%
7/23/2020	\$3.31	\$3.30	\$3.31	753,675	-1.65%
7/24/2020	\$3.53	\$3.53	\$3.54	2,705,045	6.59%
7/27/2020	\$3.47	\$3.46	\$3.47	1,027,761	-1.71%
7/28/2020	\$3.40	\$3.39	\$3.40	710,457	-2.04%
7/29/2020	\$3.34	\$3.33	\$3.34	978,697	-1.78%
7/30/2020	\$3.18	\$3.18	\$3.21	1,067,268	-4.91%
7/31/2020	\$3.17	\$3.17	\$3.18	821,746	-0.31%
8/3/2020	\$3.23	\$3.22	\$3.23	852,639	1.88%
8/4/2020	\$3.17	\$3.17	\$3.18	671,765	-1.88%
8/5/2020	\$3.12	\$3.12	\$3.13	1,050,626	-1.59%
8/6/2020	\$2.96	\$2.96	\$2.97	1,338,115	-5.26%
8/7/2020	\$2.95	\$2.95	\$2.96	596,657	-0.34%
8/10/2020	\$3.05	\$3.06	\$3.07	695,232	3.33%
8/11/2020	\$2.92	\$2.92	\$2.95	559,848	-4.36%
8/12/2020	\$3.36	\$3.35	\$3.36	14,151,137	14.04%
8/13/2020	\$3.21	\$3.21	\$3.23	2,648,227	-4.57%
8/14/2020	\$3.38	\$3.36	\$3.38	2,179,110	5.16%
8/17/2020	\$3.53	\$3.52	\$3.53	1,117,212	4.34%
8/18/2020	\$3.42	\$3.41	\$3.42	676,530	-3.17%
8/19/2020	\$3.45	\$3.44	\$3.45	630,871	0.87%
8/20/2020	\$3.38	\$3.37	\$3.38	375,875	-2.05%
8/21/2020	\$3.12	\$3.12	\$3.13	1,099,405	-8.00%
8/24/2020	\$3.04	\$3.03	\$3.04	1,020,284	-2.76%
8/25/2020	\$3.17	\$3.16	\$3.17	524,172	4.35%
8/26/2020	\$3.19	\$3.19	\$3.20	1,636,901	0.63%
8/27/2020	\$3.05	\$3.04	\$3.05	695,683	-4.49%
8/28/2020	\$3.12	\$3.11	\$3.12	557,628	2.27%
8/31/2020	\$3.14	\$3.14	\$3.15	320,060	0.64%
9/1/2020	\$3.08	\$3.07	\$3.08	437,572	-1.93%
9/2/2020	\$3.08	\$3.07	\$3.08	397,266	0.00%
9/3/2020	\$3.03	\$3.02	\$3.03	1,385,173	-1.64%
9/4/2020	\$3.02	\$3.00	\$3.02	837,006	-0.33%
9/8/2020	\$3.08	\$3.07	\$3.08	569,461	1.97%
9/9/2020	\$3.23	\$3.22	\$3.23	1,114,596	4.76%
9/10/2020	\$3.14	\$3.13	\$3.14	519,207	-2.83%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
9/11/2020	\$3.32	\$3.32	\$3.33	2,582,038	5.57%
9/14/2020	\$7.75	\$7.74	\$7.75	175,080,160	84.77%
9/15/2020	\$7.02	\$7.02	\$7.03	15,011,452	-9.89%
9/16/2020	\$7.04	\$7.03	\$7.05	5,109,809	0.28%
9/17/2020	\$7.09	\$7.08	\$7.09	4,978,574	0.71%
9/18/2020	\$10.07	\$10.06	\$10.07	117,046,032	35.09%
9/21/2020	\$9.82	\$9.81	\$9.82	11,098,494	-2.51%
9/22/2020	\$10.45	\$10.44	\$10.45	12,135,197	6.22%
9/23/2020	\$9.76	\$9.77	\$9.78	6,261,170	-6.83%
9/24/2020	\$9.71	\$9.70	\$9.71	3,278,682	-0.51%
9/25/2020	\$11.47	\$11.46	\$11.47	13,890,482	16.66%
9/28/2020	\$11.16	\$11.17	\$11.18	4,941,821	-2.74%
9/29/2020	\$11.41	\$11.40	\$11.41	3,895,140	2.22%
9/30/2020	\$11.51	\$11.48	\$11.51	4,289,057	0.87%
10/1/2020	\$11.40	\$11.37	\$11.39	1,736,358	-0.96%
10/2/2020	\$10.66	\$10.68	\$10.69	2,097,470	-6.71%
10/5/2020	\$11.57	\$11.56	\$11.57	2,612,441	8.19%
10/6/2020	\$11.35	\$11.35	\$11.36	1,517,328	-1.92%
10/7/2020	\$12.13	\$12.12	\$12.13	3,289,072	6.65%
10/8/2020	\$12.25	\$12.25	\$12.28	1,304,336	0.98%
10/9/2020	\$11.92	\$11.90	\$11.92	1,359,548	-2.73%
10/12/2020	\$11.43	\$11.42	\$11.47	1,185,906	-4.20%
10/13/2020	\$11.22	\$11.20	\$11.22	1,351,759	-1.85%
10/14/2020	\$10.99	\$10.98	\$10.99	1,061,303	-2.07%
10/15/2020	\$10.89	\$10.87	\$10.89	828,931	-0.91%
10/16/2020	\$10.48	\$10.48	\$10.49	700,678	-3.84%
10/19/2020	\$9.84	\$9.84	\$9.85	2,020,308	-6.30%
10/20/2020	\$9.40	\$9.39	\$9.40	1,344,329	-4.57%
10/21/2020	\$8.91	\$8.91	\$8.92	1,235,419	-5.35%
10/22/2020	\$8.83	\$8.83	\$8.84	2,550,663	-0.90%
10/23/2020	\$9.32	\$9.32	\$9.33	8,269,342	5.40%
10/26/2020	\$9.07	\$9.04	\$9.07	2,711,358	-2.72%
10/27/2020	\$9.11	\$9.11	\$9.12	1,230,319	0.44%
10/28/2020	\$8.67	\$8.63	\$8.67	1,579,351	-4.95%
10/29/2020	\$8.73	\$8.69	\$8.70	1,233,487	0.69%
10/30/2020	\$8.21	\$8.21	\$8.24	1,005,018	-6.14%
11/2/2020	\$8.93	\$8.90	\$8.91	1,552,689	8.41%
11/3/2020	\$9.19	\$9.17	\$9.19	917,837	2.87%
11/4/2020	\$11.54	\$11.53	\$11.54	45,339,399	22.77%
11/5/2020	\$10.51	\$10.50	\$10.51	3,841,630	-9.35%
11/6/2020	\$10.70	\$10.69	\$10.70	3,335,890	1.79%
11/9/2020	\$10.16	\$10.15	\$10.20	2,575,758	-5.18%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
11/10/2020	\$9.98	\$9.96	\$9.97	956,999	-1.79%
11/11/2020	\$10.86	\$10.81	\$10.86	1,362,598	8.45%
11/12/2020	\$11.18	\$11.16	\$11.18	2,048,818	2.90%
11/13/2020	\$8.37	\$8.36	\$8.37	12,864,296	-28.95%
11/16/2020	\$8.13	\$8.12	\$8.13	3,105,348	-2.91%
11/17/2020	\$7.95	\$7.96	\$7.97	3,093,204	-2.24%
11/18/2020	\$7.48	\$7.48	\$7.49	4,032,768	-6.09%
11/19/2020	\$7.47	\$7.45	\$7.47	3,270,865	-0.13%
11/20/2020	\$7.33	\$7.32	\$7.33	3,378,610	-1.89%
11/23/2020	\$7.10	\$7.10	\$7.11	2,959,072	-3.19%
11/24/2020	\$7.25	\$7.27	\$7.28	2,698,192	2.09%
11/25/2020	\$7.70	\$7.70	\$7.71	3,619,486	6.02%
11/27/2020	\$7.76	\$7.76	\$7.77	1,639,109	0.78%
11/30/2020	\$7.72	\$7.72	\$7.73	1,720,558	-0.52%
12/1/2020	\$7.53	\$7.52	\$7.53	1,080,758	-2.49%
12/2/2020	\$7.31	\$7.31	\$7.32	981,092	-2.97%
12/3/2020	\$7.49	\$7.49	\$7.50	1,023,008	2.43%
12/4/2020	\$7.73	\$7.73	\$7.74	1,298,883	3.15%
12/7/2020	\$7.56	\$7.57	\$7.58	1,226,764	-2.22%
12/8/2020	\$7.91	\$7.90	\$7.91	1,384,855	4.53%
12/9/2020	\$7.87	\$7.87	\$7.88	2,065,660	-0.51%
12/10/2020	\$7.70	\$7.69	\$7.70	1,279,956	-2.18%
12/11/2020	\$8.12	\$8.11	\$8.12	1,801,278	5.31%
12/14/2020	\$7.76	\$7.77	\$7.78	1,337,208	-4.53%
12/15/2020	\$8.05	\$8.04	\$8.05	1,204,542	3.67%
12/16/2020	\$7.93	\$7.93	\$7.94	1,026,399	-1.50%
12/17/2020	\$8.41	\$8.41	\$8.42	1,751,257	5.88%
12/18/2020	\$8.04	\$8.05	\$8.06	2,427,552	-4.50%
12/21/2020	\$7.83	\$7.82	\$7.83	1,251,711	-2.65%
12/22/2020	\$7.57	\$7.56	\$7.57	1,581,525	-3.38%
12/23/2020	\$7.64	\$7.63	\$7.64	872,863	0.92%
12/24/2020	\$7.46	\$7.45	\$7.46	513,602	-2.38%
12/28/2020	\$7.17	\$7.16	\$7.17	1,121,653	-3.96%
12/29/2020	\$6.79	\$6.78	\$6.79	1,733,717	-5.45%
12/30/2020	\$7.01	\$6.99	\$7.00	806,456	3.19%
12/31/2020	\$6.82	\$6.82	\$6.83	1,039,374	-2.75%
1/4/2021	\$7.09	\$7.09	\$7.10	937,732	3.88%
1/5/2021	\$7.68	\$7.68	\$7.69	2,617,327	7.99%
1/6/2021	\$8.18	\$8.18	\$8.20	2,486,282	6.31%
1/7/2021	\$8.42	\$8.41	\$8.42	1,175,455	2.89%
1/8/2021	\$8.38	\$8.38	\$8.39	911,452	-0.48%
1/11/2021	\$8.29	\$8.29	\$8.30	1,043,348	-1.08%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
1/12/2021	\$8.18	\$8.18	\$8.20	838,489	-1.34%
1/13/2021	\$11.45	\$11.43	\$11.45	24,934,600	33.63%
1/14/2021	\$10.48	\$10.47	\$10.48	5,772,411	-8.85%
1/15/2021	\$10.57	\$10.55	\$10.56	2,294,498	0.86%
1/19/2021	\$12.97	\$12.93	\$12.97	5,349,143	20.46%
1/20/2021	\$12.24	\$12.22	\$12.24	2,386,203	-5.79%
1/21/2021	\$12.08	\$12.05	\$12.08	1,406,939	-1.32%
1/22/2021	\$12.87	\$12.83	\$12.84	2,990,674	6.33%
1/25/2021	\$15.68	\$15.66	\$15.68	4,244,247	19.75%
1/26/2021	\$19.43	\$19.40	\$19.43	7,665,075	21.44%
1/27/2021	\$19.75	\$19.70	\$19.75	7,054,715	1.63%
1/28/2021	\$18.72	\$18.71	\$18.72	3,282,216	-5.36%
1/29/2021	\$19.82	\$19.68	\$19.82	2,303,969	5.71%
2/1/2021	\$22.99	\$22.88	\$22.92	3,260,821	14.84%
2/2/2021	\$55.44	\$55.36	\$55.47	75,963,738	88.02%
2/3/2021	\$87.95	\$87.80	\$87.95	54,397,848	46.15%
2/4/2021	\$63.43	\$63.42	\$63.43	47,391,432	-32.68%
2/5/2021	\$44.80	\$44.79	\$44.80	21,913,138	-34.77%
2/8/2021	\$60.67	\$60.43	\$60.62	29,528,119	30.32%
2/9/2021	\$57.56	\$57.49	\$57.57	7,515,892	-5.26%
2/10/2021	\$49.29	\$49.22	\$49.30	10,367,779	-15.51%
2/11/2021	\$48.19	\$48.18	\$48.36	3,591,531	-2.26%
2/12/2021	\$46.12	\$46.08	\$46.13	5,249,831	-4.39%
2/16/2021	\$51.83	\$51.66	\$51.79	12,461,408	11.67%
2/17/2021	\$51.22	\$51.12	\$51.22	4,067,400	-1.18%
2/18/2021	\$51.00	\$50.89	\$51.00	2,824,172	-0.43%
2/19/2021	\$55.76	\$55.75	\$55.76	5,856,251	8.92%
2/22/2021	\$53.02	\$53.02	\$53.07	12,311,727	-5.04%
2/23/2021	\$52.37	\$52.33	\$52.35	3,985,028	-1.23%
2/24/2021	\$53.06	\$52.99	\$53.06	2,345,002	1.31%
2/25/2021	\$50.88	\$50.87	\$50.88	3,638,351	-4.20%
2/26/2021	\$48.58	\$48.64	\$48.86	2,270,615	-4.63%
3/1/2021	\$50.06	\$50.15	\$50.17	2,557,040	3.00%
3/2/2021	\$51.55	\$51.55	\$51.70	3,288,500	2.93%
3/3/2021	\$48.70	\$48.71	\$48.81	2,175,063	-5.69%
3/4/2021	\$44.48	\$44.43	\$44.46	3,032,610	-9.06%
3/5/2021	\$43.41	\$43.38	\$43.41	4,058,838	-2.44%
3/8/2021	\$45.02	\$45.00	\$45.01	1,536,145	3.64%
3/9/2021	\$52.05	\$51.96	\$52.05	2,974,862	14.51%
3/10/2021	\$51.60	\$51.53	\$51.60	2,616,647	-0.87%
3/11/2021	\$54.29	\$54.28	\$54.29	1,572,890	5.08%
3/12/2021	\$53.44	\$53.38	\$53.41	1,270,377	-1.58%



**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
3/15/2021	\$52.71	\$52.65	\$52.70	1,703,137	-1.38%
3/16/2021	\$52.16	\$52.11	\$52.16	1,530,610	-1.05%
3/17/2021	\$62.52	\$62.51	\$62.52	9,291,229	18.12%
3/18/2021	\$56.25	\$56.12	\$56.15	3,468,435	-10.57%
3/19/2021	\$57.77	\$57.53	\$57.70	2,407,108	2.67%
3/22/2021	\$55.81	\$55.65	\$55.81	1,802,595	-3.45%
3/23/2021	\$52.39	\$52.12	\$52.39	2,116,598	-6.32%
3/24/2021	\$48.81	\$48.82	\$48.92	1,514,567	-7.08%
3/25/2021	\$49.71	\$49.71	\$49.86	1,856,562	1.83%
3/26/2021	\$46.57	\$46.57	\$46.65	1,706,387	-6.52%
3/29/2021	\$44.48	\$44.56	\$44.60	1,056,055	-4.59%
3/30/2021	\$43.96	\$43.96	\$44.05	2,180,535	-1.18%
3/31/2021	\$44.95	\$44.79	\$44.97	1,317,767	2.23%
4/1/2021	\$46.87	\$46.86	\$46.87	1,079,536	4.18%
4/5/2021	\$44.83	\$44.84	\$44.92	837,462	-4.45%
4/6/2021	\$42.82	\$42.82	\$42.86	1,127,984	-4.59%
4/7/2021	\$41.46	\$41.38	\$41.46	1,015,482	-3.23%
4/8/2021	\$42.10	\$42.04	\$42.10	969,361	1.53%
4/9/2021	\$41.57	\$41.53	\$41.65	593,745	-1.27%
4/12/2021	\$35.96	\$35.97	\$36.00	2,590,354	-14.50%
4/13/2021	\$36.03	\$36.02	\$36.09	1,760,376	0.19%
4/14/2021	\$35.67	\$35.67	\$35.73	1,044,234	-1.00%
4/15/2021	\$35.09	\$35.14	\$35.15	807,379	-1.64%
4/16/2021	\$34.85	\$34.87	\$34.89	1,018,803	-0.69%
4/19/2021	\$33.99	\$33.99	\$34.00	1,150,167	-2.50%
4/20/2021	\$32.15	\$32.16	\$32.22	1,314,734	-5.57%
4/21/2021	\$34.87	\$34.87	\$34.97	2,238,495	8.12%
4/22/2021	\$36.08	\$36.00	\$36.07	1,398,341	3.41%
4/23/2021	\$39.59	\$39.57	\$39.59	2,047,064	9.28%
4/26/2021	\$41.81	\$41.79	\$41.80	1,513,839	5.46%
4/27/2021	\$44.34	\$44.33	\$44.34	3,875,419	5.88%
4/28/2021	\$47.10	\$47.09	\$47.13	1,978,471	6.04%
4/29/2021	\$47.57	\$47.43	\$47.57	1,932,472	0.99%
4/30/2021	\$46.80	\$46.71	\$46.80	1,205,989	-1.63%
5/3/2021	\$42.99	\$42.99	\$43.02	1,581,108	-8.49%
5/4/2021	\$41.15	\$41.14	\$41.19	1,233,449	-4.37%
5/5/2021	\$42.02	\$41.85	\$42.03	838,385	2.09%
5/6/2021	\$41.79	\$41.78	\$41.87	1,091,142	-0.55%
5/7/2021	\$41.43	\$41.42	\$41.44	583,884	-0.87%
5/10/2021	\$38.62	\$38.54	\$38.62	748,274	-7.02%
5/11/2021	\$39.23	\$39.23	\$39.35	912,324	1.57%
5/12/2021	\$37.49	\$37.35	\$37.49	823,465	-4.54%



**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
5/13/2021	\$37.78	\$37.77	\$37.85	810,670	0.77%
5/14/2021	\$40.92	\$40.72	\$40.88	1,020,864	7.98%
5/17/2021	\$43.88	\$43.77	\$43.88	1,043,488	6.98%
5/18/2021	\$46.72	\$46.66	\$46.72	2,011,537	6.27%
5/19/2021	\$47.96	\$47.80	\$47.96	1,542,087	2.62%
5/20/2021	\$49.39	\$49.31	\$49.39	1,643,342	2.94%
5/21/2021	\$50.02	\$49.92	\$50.02	2,838,524	1.27%
5/24/2021	\$48.28	\$48.17	\$48.28	2,354,570	-3.54%
5/25/2021	\$47.77	\$47.67	\$47.78	1,273,754	-1.06%
5/26/2021	\$50.90	\$50.90	\$51.03	2,054,437	6.35%
5/27/2021	\$55.60	\$55.40	\$55.57	1,900,546	8.83%
5/28/2021	\$53.92	\$53.88	\$53.98	1,409,621	-3.07%
6/1/2021	\$57.06	\$57.04	\$57.06	1,224,960	5.66%
6/2/2021	\$60.70	\$60.65	\$60.70	1,727,742	6.18%
6/3/2021	\$62.06	\$61.98	\$62.06	1,421,262	2.22%
6/4/2021	\$64.16	\$64.16	\$64.29	1,506,773	3.33%
6/7/2021	\$67.59	\$67.53	\$67.59	7,914,511	5.21%
6/8/2021	\$68.96	\$68.91	\$68.97	2,231,167	2.01%
6/9/2021	\$66.38	\$66.25	\$66.38	1,399,493	-3.81%
6/10/2021	\$66.35	\$66.35	\$66.55	1,292,179	-0.05%
6/11/2021	\$77.00	\$76.84	\$77.00	8,930,691	14.89%
6/14/2021	\$75.79	\$75.72	\$75.80	2,242,758	-1.58%
6/15/2021	\$72.10	\$72.04	\$72.23	1,321,437	-4.99%
6/16/2021	\$80.27	\$80.21	\$80.27	2,878,989	10.73%
6/17/2021	\$78.60	\$78.44	\$78.60	2,052,319	-2.10%
6/18/2021	\$79.65	\$79.55	\$79.64	1,744,148	1.33%
6/21/2021	\$89.72	\$89.65	\$89.84	4,432,917	11.91%
6/22/2021	\$77.63	\$77.50	\$77.63	6,454,447	-14.47%
6/23/2021	\$77.56	\$77.50	\$77.51	2,473,615	-0.09%
6/24/2021	\$81.46	\$81.30	\$81.45	3,055,859	4.91%
6/25/2021	\$78.41	\$78.44	\$78.55	3,353,529	-3.82%
6/28/2021	\$85.48	\$85.31	\$85.47	2,804,309	8.63%
6/29/2021	\$82.97	\$82.80	\$82.97	1,724,699	-2.98%
6/30/2021	\$85.44	\$85.39	\$85.43	2,089,614	2.93%
7/1/2021	\$88.77	\$88.64	\$88.78	2,193,241	3.82%
7/2/2021	\$90.05	\$89.93	\$90.05	1,669,006	1.43%
7/6/2021	\$92.80	\$92.64	\$92.81	1,837,646	3.01%
7/7/2021	\$96.76	\$96.79	\$96.91	2,758,530	4.18%
7/8/2021	\$106.00	\$105.96	\$106.00	3,936,389	9.12%
7/9/2021	\$95.34	\$95.17	\$95.35	7,238,990	-10.60%
7/12/2021	\$99.32	\$99.23	\$99.32	2,905,540	4.09%
7/13/2021	\$103.80	\$103.60	\$103.80	2,163,393	4.41%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
7/14/2021	\$97.00	\$96.91	\$97.00	1,875,898	-6.78%
7/15/2021	\$82.43	\$82.42	\$82.47	3,783,526	-16.28%
7/16/2021	\$80.09	\$80.08	\$80.10	2,536,768	-2.88%
7/19/2021	\$82.26	\$82.21	\$82.56	2,918,770	2.67%
7/20/2021	\$90.83	\$90.83	\$91.07	2,821,710	9.91%
7/21/2021	\$117.60	\$117.52	\$117.59	9,256,272	25.83%
7/22/2021	\$126.61	\$126.57	\$126.58	7,248,988	7.38%
7/23/2021	\$123.38	\$123.22	\$123.38	3,632,581	-2.58%
7/26/2021	\$119.99	\$119.85	\$119.99	4,167,517	-2.79%
7/27/2021	\$127.50	\$127.42	\$127.50	3,620,013	6.07%
7/28/2021	\$135.30	\$134.76	\$135.30	5,744,636	5.94%
7/29/2021	\$103.35	\$103.34	\$103.35	20,411,782	-26.94%
7/30/2021	\$69.53	\$69.53	\$69.62	25,151,181	-39.64%
8/2/2021	\$79.98	\$79.97	\$79.98	13,210,201	14.00%
8/3/2021	\$84.86	\$84.73	\$84.86	10,254,769	5.92%
8/4/2021	\$88.26	\$88.02	\$88.26	4,272,806	3.93%
8/5/2021	\$101.59	\$101.49	\$101.59	5,672,203	14.07%
8/6/2021	\$96.41	\$96.36	\$96.41	4,279,958	-5.23%
8/9/2021	\$104.99	\$104.79	\$104.99	3,970,189	8.53%
8/10/2021	\$108.62	\$108.34	\$108.56	3,435,835	3.40%
8/11/2021	\$108.97	\$108.86	\$108.97	2,907,866	0.32%
8/12/2021	\$120.30	\$120.25	\$120.50	6,726,295	9.89%
8/13/2021	\$122.57	\$122.29	\$122.57	3,661,970	1.87%
8/16/2021	\$116.67	\$116.51	\$116.67	3,461,278	-4.93%
8/17/2021	\$104.62	\$104.61	\$104.83	5,409,174	-10.90%
8/18/2021	\$106.17	\$105.98	\$106.17	3,556,554	1.47%
8/19/2021	\$101.23	\$101.22	\$101.47	2,768,195	-4.76%
8/20/2021	\$104.06	\$103.96	\$104.06	3,019,123	2.76%
8/23/2021	\$115.61	\$115.45	\$115.59	3,349,555	10.53%
8/24/2021	\$117.83	\$117.65	\$117.84	5,127,486	1.90%
8/25/2021	\$80.86	\$80.83	\$80.86	28,993,285	-37.65%
8/26/2021	\$70.85	\$70.83	\$70.85	24,976,307	-13.22%
8/27/2021	\$58.34	\$58.33	\$58.44	43,761,529	-19.43%
8/30/2021	\$53.26	\$53.26	\$53.30	15,457,867	-9.11%
8/31/2021	\$56.85	\$56.81	\$56.83	13,608,401	6.52%
9/1/2021	\$51.96	\$51.92	\$51.96	9,220,965	-8.99%
9/2/2021	\$54.35	\$54.32	\$54.33	6,291,578	4.50%
9/3/2021	\$50.20	\$50.13	\$50.22	27,688,549	-7.94%
9/7/2021	\$47.84	\$47.83	\$47.87	7,819,575	-4.82%
9/8/2021	\$46.49	\$46.48	\$46.55	6,654,164	-2.86%
9/9/2021	\$49.72	\$49.73	\$49.75	8,526,177	6.72%
9/10/2021	\$50.64	\$50.61	\$50.64	5,817,368	1.83%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
9/13/2021	\$47.12	\$47.08	\$47.12	5,647,240	-7.20%
9/14/2021	\$41.79	\$41.79	\$41.80	7,906,545	-12.00%
9/15/2021	\$43.92	\$43.92	\$43.94	6,575,346	4.97%
9/16/2021	\$43.95	\$43.81	\$43.93	4,403,718	0.07%
9/17/2021	\$48.51	\$48.45	\$48.52	6,046,897	9.87%
9/20/2021	\$48.26	\$48.23	\$48.26	4,038,883	-0.52%
9/21/2021	\$52.86	\$52.76	\$52.86	5,748,295	9.10%
9/22/2021	\$52.31	\$52.16	\$52.31	23,618,839	-1.05%
9/23/2021	\$60.12	\$60.09	\$60.12	16,425,929	13.92%
9/24/2021	\$61.94	\$61.92	\$61.95	14,890,143	2.98%
9/27/2021	\$68.53	\$68.48	\$68.54	10,949,274	10.11%
9/28/2021	\$64.99	\$64.90	\$64.99	8,730,640	-5.30%
9/29/2021	\$62.14	\$62.09	\$62.13	6,889,545	-4.48%
9/30/2021	\$62.08	\$62.08	\$62.15	4,271,004	-0.10%
10/1/2021	\$60.52	\$60.50	\$60.52	4,191,300	-2.55%
10/4/2021	\$54.31	\$54.32	\$54.43	4,168,944	-10.83%
10/5/2021	\$57.17	\$57.19	\$57.26	3,371,018	5.13%
10/6/2021	\$52.51	\$52.45	\$52.52	6,075,810	-8.50%
10/7/2021	\$53.62	\$53.53	\$53.64	3,938,002	2.09%
10/8/2021	\$51.49	\$51.47	\$51.49	2,226,627	-4.05%
10/11/2021	\$51.08	\$51.07	\$51.15	3,832,129	-0.80%
10/12/2021	\$51.88	\$51.90	\$51.97	2,104,225	1.55%
10/13/2021	\$54.99	\$55.00	\$55.08	3,662,125	5.82%
10/14/2021	\$53.37	\$53.34	\$53.37	3,580,742	-2.99%
10/15/2021	\$49.69	\$49.64	\$49.70	3,737,585	-7.14%
10/18/2021	\$50.16	\$50.15	\$50.30	3,313,947	0.94%
10/19/2021	\$47.50	\$47.52	\$47.59	3,721,493	-5.45%
10/20/2021	\$46.39	\$46.39	\$46.43	4,023,767	-2.36%
10/21/2021	\$46.56	\$46.58	\$46.75	3,540,830	0.37%
10/22/2021	\$45.71	\$45.72	\$45.78	2,305,225	-1.84%
10/25/2021	\$47.81	\$47.73	\$47.81	3,188,022	4.49%
10/26/2021	\$47.17	\$47.09	\$47.18	2,109,758	-1.35%
10/27/2021	\$44.61	\$44.58	\$44.63	2,304,885	-5.58%
10/28/2021	\$44.46	\$44.41	\$44.46	2,161,710	-0.34%
10/29/2021	\$43.13	\$43.05	\$43.13	2,034,321	-3.04%
11/1/2021	\$46.11	\$46.11	\$46.24	3,506,951	6.68%
11/2/2021	\$58.07	\$57.96	\$58.07	28,102,663	23.06%
11/3/2021	\$56.66	\$56.63	\$56.64	13,754,172	-2.46%
11/4/2021	\$84.40	\$84.28	\$84.40	38,843,773	39.85%
11/5/2021	\$90.91	\$90.88	\$90.91	14,920,845	7.43%
11/8/2021	\$89.49	\$89.40	\$89.49	5,615,310	-1.57%
11/9/2021	\$78.41	\$78.20	\$78.44	4,656,175	-13.22%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
11/10/2021	\$69.40	\$69.40	\$69.57	5,277,106	-12.21%
11/11/2021	\$72.43	\$72.42	\$72.49	2,573,908	4.27%
11/12/2021	\$68.80	\$68.75	\$68.80	2,475,451	-5.14%
11/15/2021	\$60.51	\$60.50	\$60.54	5,946,765	-12.84%
11/16/2021	\$61.69	\$61.60	\$61.69	3,018,870	1.93%
11/17/2021	\$47.07	\$47.06	\$47.07	12,724,342	-27.05%
11/18/2021	\$48.44	\$48.40	\$48.41	6,737,011	2.87%
11/19/2021	\$53.19	\$53.11	\$53.19	6,191,752	9.35%
11/22/2021	\$52.77	\$52.61	\$52.77	3,692,648	-0.79%
11/23/2021	\$52.57	\$52.51	\$52.65	2,571,717	-0.38%
11/24/2021	\$58.05	\$58.03	\$58.05	3,549,479	9.92%
11/26/2021	\$55.96	\$55.96	\$56.07	1,932,928	-3.67%
11/29/2021	\$54.62	\$54.43	\$54.62	1,711,802	-2.42%
11/30/2021	\$53.49	\$53.40	\$53.51	2,167,549	-2.09%
12/1/2021	\$48.79	\$48.77	\$48.78	2,452,306	-9.20%
12/2/2021	\$48.35	\$48.28	\$48.34	1,799,572	-0.91%
12/3/2021	\$45.85	\$45.85	\$45.86	2,958,790	-5.31%
12/6/2021	\$43.96	\$43.94	\$43.95	1,771,662	-4.21%
12/7/2021	\$47.65	\$47.64	\$47.82	2,153,448	8.06%
12/8/2021	\$49.98	\$49.90	\$49.98	1,776,671	4.77%
12/9/2021	\$45.86	\$45.85	\$45.86	1,866,677	-8.60%
12/10/2021	\$44.10	\$44.06	\$44.10	1,868,099	-3.91%
12/13/2021	\$44.85	\$44.90	\$45.00	2,993,451	1.69%
12/14/2021	\$46.94	\$46.93	\$47.13	3,000,108	4.55%
12/15/2021	\$45.78	\$45.72	\$45.88	2,947,482	-2.50%
12/16/2021	\$43.59	\$43.54	\$43.65	2,114,595	-4.90%
12/17/2021	\$43.27	\$43.04	\$43.23	3,731,274	-0.74%
12/20/2021	\$36.77	\$36.76	\$36.78	8,643,117	-16.28%
12/21/2021	\$43.67	\$43.62	\$43.68	19,128,562	17.20%
12/22/2021	\$43.58	\$43.58	\$43.66	3,571,977	-0.21%
12/23/2021	\$44.19	\$44.12	\$44.17	2,839,031	1.39%
12/27/2021	\$46.84	\$46.71	\$46.80	2,340,027	5.82%
12/28/2021	\$44.50	\$44.50	\$44.85	2,251,606	-5.12%
12/29/2021	\$42.99	\$42.93	\$42.99	1,835,089	-3.45%
12/30/2021	\$43.77	\$43.87	\$43.97	1,636,783	1.80%
12/31/2021	\$43.70	\$43.65	\$43.67	1,857,892	-0.16%
1/3/2022	\$47.94	\$47.96	\$48.00	3,644,950	9.26%
1/4/2022	\$48.19	\$48.13	\$48.19	2,171,525	0.52%
1/5/2022	\$49.49	\$49.37	\$49.49	6,328,427	2.66%
1/6/2022	\$49.09	\$49.09	\$49.17	2,617,169	-0.81%
1/7/2022	\$47.95	\$47.85	\$47.96	2,624,611	-2.35%
1/10/2022	\$48.38	\$48.25	\$48.38	1,277,785	0.89%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
1/11/2022	\$49.64	\$49.72	\$49.77	2,055,198	2.57%
1/12/2022	\$48.49	\$48.49	\$48.66	1,827,195	-2.34%
1/13/2022	\$45.69	\$45.61	\$45.69	1,544,574	-5.95%
1/14/2022	\$45.88	\$45.83	\$45.88	1,409,619	0.42%
1/18/2022	\$41.48	\$41.52	\$41.61	2,316,495	-10.08%
1/19/2022	\$41.17	\$41.07	\$41.20	1,658,391	-0.75%
1/20/2022	\$37.41	\$37.40	\$37.41	2,665,886	-9.58%
1/21/2022	\$36.33	\$36.16	\$36.33	2,532,682	-2.93%
1/24/2022	\$39.54	\$39.49	\$39.54	2,907,190	8.47%
1/25/2022	\$40.02	\$40.10	\$40.17	1,096,068	1.21%
1/26/2022	\$39.45	\$39.35	\$39.55	1,352,575	-1.43%
1/27/2022	\$37.66	\$37.51	\$37.66	953,022	-4.64%
1/28/2022	\$39.75	\$39.61	\$39.75	1,373,015	5.40%
1/31/2022	\$44.25	\$44.11	\$44.24	1,735,127	10.72%
2/1/2022	\$46.01	\$45.89	\$46.01	2,899,337	3.90%
2/2/2022	\$45.73	\$45.57	\$45.73	1,402,603	-0.61%
2/3/2022	\$45.08	\$45.01	\$45.08	867,809	-1.43%
2/4/2022	\$47.81	\$47.81	\$47.90	1,730,920	5.88%
2/7/2022	\$47.04	\$46.90	\$47.04	1,242,744	-1.62%
2/8/2022	\$47.12	\$47.01	\$47.12	928,419	0.17%
2/9/2022	\$49.22	\$49.17	\$49.25	1,367,002	4.36%
2/10/2022	\$53.05	\$53.06	\$53.12	9,514,622	7.49%
2/11/2022	\$51.01	\$50.95	\$51.01	2,959,086	-3.92%
2/14/2022	\$48.70	\$48.80	\$48.87	1,215,061	-4.63%
2/15/2022	\$49.22	\$49.24	\$49.32	934,348	1.06%
2/16/2022	\$48.76	\$48.72	\$48.76	655,006	-0.94%
2/17/2022	\$44.97	\$44.98	\$45.11	1,001,588	-8.09%
2/18/2022	\$45.29	\$45.35	\$45.40	1,199,962	0.71%
2/22/2022	\$41.51	\$41.52	\$41.60	1,424,840	-8.72%
2/23/2022	\$38.33	\$38.34	\$38.42	1,272,003	-7.97%
2/24/2022	\$42.01	\$42.01	\$42.06	1,827,703	9.17%
2/25/2022	\$42.51	\$42.45	\$42.50	782,229	1.18%
2/28/2022	\$42.51	\$42.47	\$42.51	740,117	0.00%
3/1/2022	\$40.17	\$40.18	\$40.29	907,640	-5.66%
3/2/2022	\$40.62	\$40.56	\$40.62	828,237	1.11%
3/3/2022	\$37.11	\$37.10	\$37.11	2,146,663	-9.04%
3/4/2022	\$37.31	\$37.30	\$37.36	1,019,216	0.54%
3/7/2022	\$34.89	\$34.89	\$34.97	1,215,022	-6.71%
3/8/2022	\$35.55	\$35.60	\$35.65	1,484,432	1.87%
3/9/2022	\$37.46	\$37.41	\$37.45	1,016,546	5.23%
3/10/2022	\$37.65	\$37.58	\$37.65	571,275	0.51%
3/11/2022	\$35.91	\$36.00	\$36.07	450,931	-4.73%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
3/14/2022	\$32.60	\$32.59	\$32.64	997,423	-9.67%
3/15/2022	\$34.85	\$34.81	\$34.84	702,609	6.67%
3/16/2022	\$37.19	\$37.12	\$37.19	757,997	6.50%
3/17/2022	\$39.13	\$39.10	\$39.13	794,535	5.08%
3/18/2022	\$39.08	\$38.98	\$39.08	1,032,510	-0.13%
3/21/2022	\$38.22	\$38.23	\$38.31	643,508	-2.23%
3/22/2022	\$38.94	\$38.88	\$38.93	714,402	1.87%
3/23/2022	\$39.82	\$39.86	\$39.93	2,235,645	2.23%
3/24/2022	\$40.83	\$40.80	\$40.83	973,775	2.50%
3/25/2022	\$40.17	\$40.26	\$40.27	633,737	-1.63%
3/28/2022	\$40.14	\$40.14	\$40.18	695,796	-0.07%
3/29/2022	\$39.98	\$39.93	\$39.98	969,438	-0.40%
3/30/2022	\$38.54	\$38.53	\$38.61	1,933,178	-3.67%
3/31/2022	\$37.14	\$37.08	\$37.15	1,241,678	-3.70%
4/1/2022	\$37.95	\$37.91	\$37.94	885,689	2.16%
4/4/2022	\$38.47	\$38.44	\$38.47	1,057,951	1.36%
4/5/2022	\$31.23	\$31.22	\$31.23	6,888,599	-20.85%
4/6/2022	\$29.20	\$29.16	\$29.21	3,331,200	-6.72%
4/7/2022	\$28.05	\$28.05	\$28.10	4,062,361	-4.02%
4/8/2022	\$27.09	\$27.07	\$27.09	1,354,799	-3.48%
4/11/2022	\$26.05	\$26.13	\$26.17	1,232,623	-3.91%
4/12/2022	\$26.17	\$26.16	\$26.21	1,129,825	0.46%
4/13/2022	\$26.94	\$26.91	\$26.96	1,415,637	2.90%
4/14/2022	\$26.25	\$26.19	\$26.25	915,707	-2.59%
4/18/2022	\$25.31	\$25.40	\$25.43	1,638,755	-3.65%
4/19/2022	\$22.46	\$22.45	\$22.46	7,865,912	-11.95%
4/20/2022	\$20.39	\$20.38	\$20.39	2,207,288	-9.67%
4/21/2022	\$18.51	\$18.50	\$18.51	3,111,459	-9.67%
4/22/2022	\$19.01	\$19.00	\$19.04	2,751,659	2.67%
4/25/2022	\$20.61	\$20.58	\$20.60	2,161,369	8.08%
4/26/2022	\$21.55	\$21.55	\$21.57	4,859,925	4.46%
4/27/2022	\$21.11	\$21.06	\$21.10	1,679,897	-2.06%
4/28/2022	\$20.90	\$20.87	\$20.89	1,310,341	-1.00%
4/29/2022	\$20.87	\$20.91	\$20.98	1,147,036	-0.14%
5/2/2022	\$20.80	\$20.76	\$20.82	1,386,084	-0.34%
5/3/2022	\$21.08	\$21.03	\$21.06	741,330	1.34%
5/4/2022	\$21.11	\$21.03	\$21.11	1,375,209	0.14%
5/5/2022	\$20.75	\$20.75	\$20.83	895,887	-1.72%
5/6/2022	\$20.05	\$20.07	\$20.11	949,038	-3.43%
5/9/2022	\$18.93	\$18.99	\$19.04	1,645,073	-5.75%
5/10/2022	\$19.78	\$19.73	\$19.78	1,081,122	4.39%
5/11/2022	\$17.22	\$17.16	\$17.22	1,430,119	-13.86%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
5/12/2022	\$17.63	\$17.59	\$17.63	1,235,825	2.35%
5/13/2022	\$19.24	\$19.21	\$19.23	1,028,818	8.74%
5/16/2022	\$20.82	\$20.76	\$20.79	1,632,670	7.89%
5/17/2022	\$22.76	\$22.72	\$22.76	1,028,186	8.91%
5/18/2022	\$22.28	\$22.22	\$22.28	929,615	-2.13%
5/19/2022	\$23.98	\$24.05	\$24.07	868,534	7.35%
5/20/2022	\$25.15	\$25.06	\$25.14	1,801,654	4.76%
5/23/2022	\$27.23	\$27.23	\$27.29	1,304,347	7.95%
5/24/2022	\$25.06	\$25.07	\$25.17	1,104,628	-8.30%
5/25/2022	\$26.64	\$26.66	\$26.70	700,672	6.11%
5/26/2022	\$25.50	\$25.50	\$25.51	718,520	-4.37%
5/27/2022	\$26.66	\$26.66	\$26.72	756,227	4.45%
5/31/2022	\$30.60	\$30.47	\$30.65	8,898,538	13.78%
6/1/2022	\$26.82	\$26.76	\$26.79	2,069,657	-13.19%
6/2/2022	\$27.56	\$27.55	\$27.58	806,037	2.72%
6/3/2022	\$29.06	\$28.98	\$29.05	1,645,309	5.30%
6/6/2022	\$27.93	\$27.90	\$28.02	672,487	-3.97%
6/7/2022	\$28.88	\$28.86	\$28.89	733,055	3.34%
6/8/2022	\$28.20	\$28.20	\$28.25	647,198	-2.38%
6/9/2022	\$25.87	\$25.86	\$25.99	614,311	-8.62%
6/10/2022	\$27.49	\$27.48	\$27.55	856,550	6.07%
6/13/2022	\$22.67	\$22.67	\$22.70	1,347,926	-19.28%
6/14/2022	\$24.45	\$24.43	\$24.44	792,533	7.56%
6/15/2022	\$26.80	\$26.68	\$26.80	772,530	9.18%
6/16/2022	\$26.43	\$26.39	\$26.50	484,632	-1.39%
6/17/2022	\$26.92	\$26.85	\$26.89	864,175	1.84%
6/21/2022	\$26.61	\$26.61	\$26.66	733,079	-1.16%
6/22/2022	\$29.27	\$29.21	\$29.27	1,361,897	9.53%
6/23/2022	\$30.80	\$30.85	\$30.87	1,091,231	5.10%
6/24/2022	\$30.44	\$30.50	\$30.63	1,214,431	-1.18%
6/27/2022	\$30.85	\$30.82	\$30.85	553,259	1.34%
6/28/2022	\$29.47	\$29.47	\$29.52	711,699	-4.58%
6/29/2022	\$29.75	\$29.75	\$29.76	393,250	0.95%
6/30/2022	\$28.12	\$28.05	\$28.12	932,643	-5.63%
7/1/2022	\$26.51	\$26.50	\$26.59	756,236	-5.90%
7/5/2022	\$26.49	\$26.49	\$26.52	698,903	-0.08%
7/6/2022	\$24.43	\$24.50	\$24.51	1,063,174	-8.10%
7/7/2022	\$24.91	\$24.86	\$24.89	872,022	1.95%
7/8/2022	\$24.28	\$24.25	\$24.28	759,696	-2.56%
7/11/2022	\$23.34	\$23.34	\$23.40	717,606	-3.95%
7/12/2022	\$23.23	\$23.23	\$23.28	597,298	-0.47%
7/13/2022	\$23.40	\$23.39	\$23.41	574,674	0.73%



**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
7/14/2022	\$23.27	\$23.24	\$23.30	787,639	-0.56%
7/15/2022	\$23.91	\$23.91	\$23.95	876,689	2.71%
7/18/2022	\$23.57	\$23.57	\$23.60	611,723	-1.43%
7/19/2022	\$24.36	\$24.32	\$24.33	679,050	3.30%
7/20/2022	\$24.21	\$24.18	\$24.21	681,136	-0.62%
7/21/2022	\$23.64	\$23.63	\$23.64	1,110,887	-2.38%
7/22/2022	\$22.93	\$22.93	\$22.96	1,296,168	-3.05%
7/25/2022	\$21.69	\$21.69	\$21.70	792,765	-5.56%
7/26/2022	\$21.72	\$21.73	\$21.75	509,430	0.14%
7/27/2022	\$18.69	\$18.68	\$18.69	13,382,605	-15.02%
7/28/2022	\$16.84	\$16.81	\$16.82	2,612,193	-10.42%
7/29/2022	\$16.33	\$16.32	\$16.33	2,132,409	-3.08%
8/1/2022	\$17.95	\$17.93	\$17.94	3,288,390	9.46%
8/2/2022	\$19.38	\$19.34	\$19.37	3,311,090	7.67%
8/3/2022	\$18.50	\$18.49	\$18.54	2,277,770	-4.65%
8/4/2022	\$17.16	\$17.18	\$17.21	1,892,304	-7.52%
8/5/2022	\$17.50	\$17.47	\$17.50	1,932,685	1.96%
8/8/2022	\$19.42	\$19.38	\$19.42	3,844,971	10.41%
8/9/2022	\$20.21	\$20.22	\$20.23	1,224,473	3.99%
8/10/2022	\$19.82	\$19.81	\$19.82	873,615	-1.95%
8/11/2022	\$19.85	\$19.85	\$19.87	1,322,875	0.15%
8/12/2022	\$20.42	\$20.38	\$20.42	1,347,901	2.83%
8/15/2022	\$20.19	\$20.19	\$20.23	897,903	-1.13%
8/16/2022	\$20.21	\$20.22	\$20.23	2,077,985	0.10%
8/17/2022	\$25.72	\$25.69	\$25.71	34,961,647	24.11%
8/18/2022	\$26.47	\$26.53	\$26.57	19,264,282	2.87%
8/19/2022	\$25.58	\$25.65	\$25.69	2,638,630	-3.42%
8/22/2022	\$24.61	\$24.65	\$24.71	1,767,784	-3.87%
8/23/2022	\$25.31	\$25.33	\$25.36	2,546,021	2.80%
8/24/2022	\$27.83	\$27.80	\$27.83	3,274,809	9.49%
8/25/2022	\$27.28	\$27.25	\$27.28	3,118,950	-2.00%
8/26/2022	\$29.39	\$29.33	\$29.40	4,680,255	7.45%
8/29/2022	\$26.12	\$26.10	\$26.12	3,353,979	-11.80%
8/30/2022	\$26.24	\$26.20	\$26.24	1,871,683	0.46%
8/31/2022	\$25.73	\$25.73	\$25.80	1,159,955	-1.96%
9/1/2022	\$25.34	\$25.35	\$25.36	1,011,767	-1.53%
9/2/2022	\$24.68	\$24.68	\$24.73	931,929	-2.64%
9/6/2022	\$28.36	\$28.37	\$28.40	2,949,776	13.90%
9/7/2022	\$29.32	\$29.25	\$29.30	2,410,019	3.33%
9/8/2022	\$29.61	\$29.62	\$29.64	1,264,063	0.98%
9/9/2022	\$32.80	\$32.75	\$32.80	3,318,073	10.23%
9/12/2022	\$33.38	\$33.46	\$33.49	1,702,399	1.75%



**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
9/13/2022	\$30.87	\$30.89	\$30.93	2,692,897	-7.82%
9/14/2022	\$32.92	\$32.91	\$32.96	1,751,786	6.43%
9/15/2022	\$31.58	\$31.58	\$31.61	1,131,541	-4.16%
9/16/2022	\$31.04	\$31.02	\$31.04	1,255,695	-1.72%
9/19/2022	\$30.30	\$30.30	\$30.35	1,146,298	-2.41%
9/20/2022	\$38.91	\$38.91	\$38.93	7,594,904	25.01%
9/21/2022	\$37.64	\$37.57	\$37.63	7,189,207	-3.32%
9/22/2022	\$51.06	\$51.01	\$51.02	23,578,080	30.49%
9/23/2022	\$41.87	\$41.86	\$41.90	13,798,880	-19.84%
9/26/2022	\$45.19	\$45.29	\$45.38	7,547,495	7.63%
9/27/2022	\$46.18	\$46.15	\$46.18	3,602,743	2.17%
9/28/2022	\$43.84	\$43.78	\$43.81	6,026,280	-5.20%
9/29/2022	\$43.07	\$43.06	\$43.07	2,784,174	-1.77%
9/30/2022	\$41.82	\$41.80	\$41.82	2,033,296	-2.95%
10/3/2022	\$41.50	\$41.50	\$41.52	1,677,082	-0.77%
10/4/2022	\$41.72	\$41.71	\$41.78	1,224,151	0.53%
10/5/2022	\$40.97	\$40.92	\$40.97	1,017,919	-1.81%
10/6/2022	\$42.35	\$42.32	\$42.36	4,246,601	3.31%
10/7/2022	\$39.93	\$39.93	\$39.95	2,001,275	-5.88%
10/10/2022	\$36.32	\$36.31	\$36.38	1,997,555	-9.48%
10/11/2022	\$35.64	\$35.62	\$35.65	927,652	-1.89%
10/12/2022	\$35.86	\$35.77	\$35.80	1,875,902	0.62%
10/13/2022	\$37.21	\$37.19	\$37.21	1,259,659	3.70%
10/14/2022	\$36.46	\$36.46	\$36.50	1,026,860	-2.04%
10/17/2022	\$35.92	\$35.90	\$35.94	1,181,830	-1.49%
10/18/2022	\$34.92	\$34.92	\$34.93	724,915	-2.82%
10/19/2022	\$33.28	\$33.28	\$33.31	766,566	-4.81%
10/20/2022	\$33.94	\$33.91	\$33.94	753,951	1.96%
10/21/2022	\$34.99	\$34.95	\$34.97	703,024	3.05%
10/24/2022	\$34.07	\$34.04	\$34.07	554,933	-2.66%
10/25/2022	\$34.31	\$34.31	\$34.34	898,070	0.70%
10/26/2022	\$35.55	\$35.50	\$35.54	604,207	3.55%
10/27/2022	\$34.83	\$34.84	\$34.88	572,374	-2.05%
10/28/2022	\$36.76	\$36.75	\$36.76	979,866	5.39%
10/31/2022	\$36.44	\$36.44	\$36.53	866,539	-0.87%
11/1/2022	\$35.96	\$35.89	\$35.94	797,943	-1.33%
11/2/2022	\$35.72	\$35.71	\$35.77	2,536,258	-0.67%
11/3/2022	\$34.21	\$34.20	\$34.21	1,423,749	-4.32%
11/4/2022	\$35.27	\$35.26	\$35.31	658,912	3.05%
11/7/2022	\$34.11	\$34.03	\$34.11	1,232,153	-3.34%
11/8/2022	\$34.89	\$34.85	\$34.90	1,026,705	2.26%
11/9/2022	\$34.59	\$34.53	\$34.63	524,630	-0.86%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
11/10/2022	\$34.96	\$34.91	\$34.99	791,248	1.06%
11/11/2022	\$37.60	\$37.53	\$37.59	1,798,034	7.28%
11/14/2022	\$41.15	\$41.13	\$41.14	4,380,253	9.02%
11/15/2022	\$40.10	\$40.05	\$40.11	1,380,967	-2.58%
11/16/2022	\$34.87	\$34.86	\$34.87	1,978,447	-13.97%
11/17/2022	\$34.56	\$34.55	\$34.61	1,172,526	-0.89%
11/18/2022	\$33.33	\$33.32	\$33.34	4,154,987	-3.62%
11/21/2022	\$32.61	\$32.60	\$32.64	919,173	-2.18%
11/22/2022	\$32.90	\$32.86	\$32.89	1,351,608	0.89%
11/23/2022	\$33.64	\$33.76	\$33.78	717,814	2.22%
11/25/2022	\$34.92	\$34.93	\$34.96	437,572	3.73%
11/28/2022	\$33.91	\$33.92	\$33.97	563,559	-2.93%
11/29/2022	\$34.40	\$34.37	\$34.40	952,019	1.43%
11/30/2022	\$34.83	\$34.78	\$34.81	1,068,748	1.24%
12/1/2022	\$34.14	\$34.08	\$34.13	695,730	-2.00%
12/2/2022	\$35.83	\$35.83	\$35.88	1,163,042	4.83%
12/5/2022	\$33.74	\$33.74	\$33.75	758,853	-6.01%
12/6/2022	\$33.62	\$33.60	\$33.63	977,699	-0.36%
12/7/2022	\$36.91	\$36.90	\$36.95	2,195,454	9.34%
12/8/2022	\$38.49	\$38.49	\$38.53	1,752,998	4.19%
12/9/2022	\$38.73	\$38.71	\$38.73	1,092,177	0.62%
12/12/2022	\$42.15	\$42.09	\$42.15	1,846,981	8.46%
12/13/2022	\$44.16	\$44.12	\$44.13	1,554,616	4.66%
12/14/2022	\$44.12	\$44.04	\$44.09	1,029,408	-0.09%
12/15/2022	\$39.57	\$39.56	\$39.57	1,187,372	-10.88%
12/16/2022	\$38.70	\$38.63	\$38.68	1,166,743	-2.22%
12/19/2022	\$38.10	\$38.06	\$38.09	712,902	-1.56%
12/20/2022	\$37.73	\$37.68	\$37.73	695,391	-0.98%
12/21/2022	\$36.89	\$36.89	\$36.93	860,329	-2.25%
12/22/2022	\$33.25	\$33.24	\$33.25	3,203,124	-10.39%
12/23/2022	\$31.68	\$31.67	\$31.68	1,073,067	-4.84%
12/27/2022	\$28.67	\$28.70	\$28.72	1,371,423	-9.98%
12/28/2022	\$27.82	\$27.84	\$27.85	1,291,135	-3.01%
12/29/2022	\$28.93	\$28.92	\$28.94	1,159,150	3.91%
12/30/2022	\$29.54	\$29.50	\$29.54	1,023,343	2.09%
1/3/2023	\$27.76	\$27.71	\$27.74	1,238,711	-6.21%
1/4/2023	\$29.80	\$29.77	\$29.80	853,227	7.09%
1/5/2023	\$29.28	\$29.28	\$29.32	542,326	-1.76%
1/6/2023	\$28.57	\$28.55	\$28.57	1,963,986	-2.45%
1/9/2023	\$28.82	\$28.82	\$28.87	856,180	0.87%
1/10/2023	\$31.24	\$31.25	\$31.28	1,089,193	8.06%
1/11/2023	\$35.59	\$35.55	\$35.58	2,025,883	13.04%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
1/12/2023	\$34.06	\$34.06	\$34.08	1,875,193	-4.39%
1/13/2023	\$34.00	\$33.95	\$34.00	989,780	-0.18%
1/17/2023	\$34.58	\$34.55	\$34.58	919,877	1.69%
1/18/2023	\$34.16	\$34.16	\$34.21	903,246	-1.22%
1/19/2023	\$33.06	\$33.08	\$33.11	719,918	-3.27%
1/20/2023	\$34.84	\$34.81	\$34.84	1,175,645	5.24%
1/23/2023	\$36.44	\$36.42	\$36.45	2,163,341	4.49%
1/24/2023	\$29.44	\$29.43	\$29.47	11,859,080	-21.33%
1/25/2023	\$27.49	\$27.48	\$27.49	4,667,304	-6.85%
1/26/2023	\$27.91	\$27.90	\$27.91	1,516,060	1.52%
1/27/2023	\$28.91	\$28.90	\$28.92	2,015,623	3.52%
1/30/2023	\$27.24	\$27.27	\$27.31	1,318,975	-5.95%
1/31/2023	\$28.00	\$27.99	\$28.02	1,035,363	2.75%
2/1/2023	\$28.80	\$28.78	\$28.81	1,097,617	2.82%
2/2/2023	\$31.52	\$31.49	\$31.51	2,928,150	9.02%
2/3/2023	\$30.92	\$30.92	\$30.94	1,076,871	-1.92%
2/6/2023	\$29.59	\$29.58	\$29.61	834,548	-4.40%
2/7/2023	\$29.88	\$29.86	\$29.88	872,112	0.98%
2/8/2023	\$29.51	\$29.50	\$29.52	1,943,069	-1.25%
2/9/2023	\$28.51	\$28.51	\$28.52	937,074	-3.45%
2/10/2023	\$28.08	\$28.05	\$28.09	584,317	-1.52%
2/13/2023	\$26.86	\$26.87	\$26.90	861,239	-4.44%
2/14/2023	\$25.99	\$25.98	\$26.01	2,310,834	-3.29%
2/15/2023	\$26.41	\$26.40	\$26.44	959,201	1.60%
2/16/2023	\$26.35	\$26.35	\$26.38	826,932	-0.23%
2/17/2023	\$27.00	\$26.99	\$27.03	716,691	2.44%
2/21/2023	\$25.21	\$25.23	\$25.25	766,016	-6.86%
2/22/2023	\$25.24	\$25.24	\$25.27	528,784	0.12%
2/23/2023	\$25.43	\$25.40	\$25.43	557,620	0.75%
2/24/2023	\$24.90	\$24.85	\$24.90	561,353	-2.11%
2/27/2023	\$24.78	\$24.75	\$24.78	600,582	-0.48%
2/28/2023	\$24.70	\$24.64	\$24.68	915,705	-0.32%
3/1/2023	\$25.02	\$25.02	\$25.05	662,460	1.29%
3/2/2023	\$25.40	\$25.34	\$25.40	479,366	1.51%
3/3/2023	\$26.50	\$26.48	\$26.52	772,227	4.24%
3/6/2023	\$26.29	\$26.22	\$26.27	671,533	-0.80%
3/7/2023	\$25.20	\$25.18	\$25.20	638,690	-4.23%
3/8/2023	\$24.97	\$24.96	\$24.98	895,146	-0.92%
3/9/2023	\$24.79	\$24.79	\$24.82	1,979,248	-0.72%
3/10/2023	\$24.90	\$24.90	\$24.92	889,953	0.44%
3/13/2023	\$25.62	\$25.59	\$25.63	1,065,499	2.85%
3/14/2023	\$26.01	\$25.98	\$26.02	564,935	1.51%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
3/15/2023	\$26.05	\$26.03	\$26.06	607,615	0.15%
3/16/2023	\$26.75	\$26.71	\$26.75	915,290	2.65%
3/17/2023	\$26.34	\$26.29	\$26.34	817,032	-1.54%
3/20/2023	\$26.15	\$26.11	\$26.15	502,868	-0.72%
3/21/2023	\$25.71	\$25.69	\$25.72	598,412	-1.70%
3/22/2023	\$23.53	\$23.51	\$23.53	1,638,542	-8.86%
3/23/2023	\$23.95	\$23.92	\$23.95	713,860	1.77%
3/24/2023	\$24.17	\$24.13	\$24.15	681,970	0.91%
3/27/2023	\$24.14	\$24.13	\$24.16	559,124	-0.12%
3/28/2023	\$23.46	\$23.43	\$23.45	419,065	-2.86%
3/29/2023	\$23.79	\$23.78	\$23.81	583,708	1.40%
3/30/2023	\$24.01	\$23.99	\$24.01	478,008	0.92%
3/31/2023	\$24.12	\$24.08	\$24.10	931,357	0.46%
4/3/2023	\$24.26	\$24.23	\$24.26	444,405	0.58%
4/4/2023	\$24.01	\$24.00	\$24.01	339,268	-1.04%
4/5/2023	\$23.84	\$23.84	\$23.87	409,418	-0.71%
4/6/2023	\$23.97	\$23.98	\$24.00	424,254	0.54%
4/10/2023	\$23.11	\$23.11	\$23.12	948,670	-3.65%
4/11/2023	\$23.40	\$23.40	\$23.41	569,692	1.25%
4/12/2023	\$22.90	\$22.89	\$22.91	431,404	-2.16%
4/13/2023	\$23.62	\$23.59	\$23.62	544,045	3.10%
4/14/2023	\$23.32	\$23.31	\$23.35	512,766	-1.28%
4/17/2023	\$24.69	\$24.66	\$24.67	622,322	5.71%
4/18/2023	\$24.56	\$24.55	\$24.56	278,566	-0.55%
4/19/2023	\$24.15	\$24.15	\$24.16	296,767	-1.66%
4/20/2023	\$23.37	\$23.38	\$23.39	413,015	-3.28%
4/21/2023	\$23.50	\$23.48	\$23.49	331,129	0.55%
4/24/2023	\$22.83	\$22.80	\$22.82	533,238	-2.89%
4/25/2023	\$21.90	\$21.89	\$21.91	565,024	-4.16%
4/26/2023	\$21.59	\$21.59	\$21.61	371,657	-1.43%
4/27/2023	\$22.67	\$22.65	\$22.68	653,456	4.88%
4/28/2023	\$23.22	\$23.22	\$23.26	589,938	2.40%
5/1/2023	\$23.34	\$23.34	\$23.37	614,540	0.52%
5/2/2023	\$22.18	\$22.17	\$22.20	845,481	-5.10%
5/3/2023	\$22.31	\$22.30	\$22.31	450,286	0.58%
5/4/2023	\$22.34	\$22.31	\$22.35	356,272	0.13%
5/5/2023	\$22.32	\$22.32	\$22.33	1,245,533	-0.09%
5/8/2023	\$23.12	\$23.09	\$23.13	705,053	3.52%
5/9/2023	\$26.58	\$26.56	\$26.58	2,589,283	13.95%
5/10/2023	\$27.02	\$26.99	\$27.03	1,129,690	1.64%
5/11/2023	\$27.88	\$27.87	\$27.88	1,260,100	3.13%
5/12/2023	\$26.47	\$26.46	\$26.49	1,128,687	-5.19%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
5/15/2023	\$26.51	\$26.50	\$26.53	638,586	0.15%
5/16/2023	\$25.28	\$25.24	\$25.28	609,928	-4.75%
5/17/2023	\$25.29	\$25.28	\$25.33	486,521	0.04%
5/18/2023	\$24.63	\$24.62	\$24.65	874,876	-2.64%
5/19/2023	\$24.14	\$24.14	\$24.16	557,396	-2.01%
5/22/2023	\$25.22	\$25.20	\$25.23	633,766	4.38%
5/23/2023	\$25.31	\$25.29	\$25.31	597,387	0.36%
5/24/2023	\$25.25	\$25.25	\$25.28	341,647	-0.24%
5/25/2023	\$24.20	\$24.19	\$24.22	797,189	-4.25%
5/26/2023	\$23.57	\$23.55	\$23.57	749,170	-2.64%
5/30/2023	\$22.80	\$22.79	\$22.82	872,014	-3.32%
5/31/2023	\$22.71	\$22.68	\$22.69	966,890	-0.40%
6/1/2023	\$22.52	\$22.52	\$22.55	529,353	-0.84%
6/2/2023	\$23.23	\$23.21	\$23.23	702,187	3.10%
6/5/2023	\$22.87	\$22.82	\$22.86	445,743	-1.56%
6/6/2023	\$23.31	\$23.28	\$23.32	641,188	1.91%
6/7/2023	\$24.01	\$24.01	\$24.04	557,708	2.96%
6/8/2023	\$24.48	\$24.46	\$24.48	714,386	1.94%
6/9/2023	\$24.31	\$24.28	\$24.30	608,539	-0.70%
6/12/2023	\$24.67	\$24.67	\$24.70	937,679	1.47%
6/13/2023	\$25.59	\$25.56	\$25.59	660,402	3.66%
6/14/2023	\$25.33	\$25.32	\$25.37	498,355	-1.02%
6/15/2023	\$25.07	\$25.04	\$25.08	345,554	-1.03%
6/16/2023	\$24.60	\$24.57	\$24.59	725,543	-1.89%
6/20/2023	\$24.74	\$24.72	\$24.77	348,689	0.57%
6/21/2023	\$25.21	\$25.19	\$25.22	809,043	1.88%
6/22/2023	\$25.46	\$25.46	\$25.48	312,381	0.99%
6/23/2023	\$24.83	\$24.80	\$24.82	563,419	-2.51%
6/26/2023	\$23.61	\$23.61	\$23.62	631,267	-5.04%
6/27/2023	\$24.00	\$23.96	\$24.00	539,711	1.64%
6/28/2023	\$23.77	\$23.75	\$23.78	346,347	-0.96%
6/29/2023	\$23.66	\$23.65	\$23.66	354,530	-0.46%
6/30/2023	\$24.52	\$24.47	\$24.52	550,275	3.57%
7/3/2023	\$25.32	\$25.25	\$25.32	347,138	3.21%
7/5/2023	\$22.04	\$22.03	\$22.04	6,471,645	-13.87%
7/6/2023	\$22.91	\$22.90	\$22.92	1,688,036	3.87%
7/7/2023	\$22.15	\$22.14	\$22.17	1,580,802	-3.37%
7/10/2023	\$21.87	\$21.87	\$21.89	1,256,866	-1.27%
7/11/2023	\$22.10	\$22.09	\$22.12	847,379	1.05%
7/12/2023	\$22.12	\$22.12	\$22.15	708,569	0.09%
7/13/2023	\$21.92	\$21.90	\$21.92	987,071	-0.91%
7/14/2023	\$21.63	\$21.62	\$21.66	740,799	-1.33%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
7/17/2023	\$21.92	\$21.90	\$21.92	596,172	1.33%
7/18/2023	\$21.29	\$21.29	\$21.31	861,884	-2.92%
7/19/2023	\$21.42	\$21.41	\$21.43	590,169	0.61%
7/20/2023	\$21.37	\$21.37	\$21.38	519,876	-0.23%
7/21/2023	\$21.60	\$21.56	\$21.60	515,472	1.07%
7/24/2023	\$20.63	\$20.63	\$20.64	906,535	-4.59%
7/25/2023	\$20.30	\$20.27	\$20.31	858,852	-1.61%
7/26/2023	\$20.04	\$20.02	\$20.04	739,052	-1.29%
7/27/2023	\$20.41	\$20.40	\$20.41	776,681	1.83%
7/28/2023	\$20.98	\$20.96	\$20.98	837,295	2.75%
7/31/2023	\$21.98	\$21.98	\$22.00	682,371	4.66%
8/1/2023	\$21.84	\$21.83	\$21.85	594,278	-0.64%
8/2/2023	\$20.98	\$20.98	\$21.01	524,710	-4.02%
8/3/2023	\$20.84	\$20.82	\$20.85	574,111	-0.67%
8/4/2023	\$20.18	\$20.16	\$20.19	857,211	-3.24%
8/7/2023	\$18.95	\$18.95	\$18.97	1,377,462	-6.26%
8/8/2023	\$18.78	\$18.77	\$18.78	1,018,816	-0.90%
8/9/2023	\$18.66	\$18.64	\$18.66	1,005,026	-0.64%
8/10/2023	\$18.21	\$18.21	\$18.22	1,078,051	-2.44%
8/11/2023	\$17.92	\$17.91	\$17.92	585,836	-1.61%
8/14/2023	\$18.29	\$18.29	\$18.32	1,569,281	2.04%
8/15/2023	\$17.55	\$17.55	\$17.56	721,435	-4.13%
8/16/2023	\$17.09	\$17.09	\$17.10	509,504	-2.66%
8/17/2023	\$17.39	\$17.39	\$17.41	619,098	1.74%
8/18/2023	\$17.08	\$17.07	\$17.10	520,084	-1.80%
8/21/2023	\$16.78	\$16.78	\$16.79	1,032,149	-1.77%
8/22/2023	\$17.23	\$17.23	\$17.25	660,624	2.65%
8/23/2023	\$17.42	\$17.39	\$17.41	616,773	1.10%
8/24/2023	\$18.40	\$18.39	\$18.40	1,642,166	5.47%
8/25/2023	\$18.26	\$18.25	\$18.27	1,537,260	-0.76%
8/28/2023	\$19.51	\$19.51	\$19.53	1,323,116	6.62%
8/29/2023	\$21.24	\$21.24	\$21.25	1,808,584	8.50%
8/30/2023	\$21.70	\$21.68	\$21.69	1,397,839	2.14%
8/31/2023	\$20.97	\$20.97	\$20.98	875,641	-3.42%
9/1/2023	\$21.04	\$21.03	\$21.05	734,652	0.33%
9/5/2023	\$21.02	\$21.02	\$21.04	518,882	-0.10%
9/6/2023	\$20.57	\$20.56	\$20.58	913,878	-2.16%
9/7/2023	\$21.06	\$21.05	\$21.06	836,666	2.35%
9/8/2023	\$21.11	\$21.11	\$21.12	478,822	0.24%
9/11/2023	\$20.89	\$20.88	\$20.89	1,164,400	-1.05%
9/12/2023	\$19.36	\$19.35	\$19.37	930,987	-7.61%
9/13/2023	\$19.53	\$19.53	\$19.54	931,167	0.87%

**Exhibit-4****Cassava Common Stock Prices, Volume, and Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Cassava Closing Price</b>	<b>Cassava Closing Bid</b>	<b>Cassava Closing Ask</b>	<b>Cassava Trading Volume</b>	<b>Cassava Logarithmic Return<sup>[1]</sup></b>
9/14/2023	\$19.68	\$19.68	\$19.70	595,651	0.77%
9/15/2023	\$19.41	\$19.41	\$19.43	754,680	-1.38%
9/18/2023	\$18.38	\$18.38	\$18.39	1,358,519	-5.45%
9/19/2023	\$18.20	\$18.19	\$18.21	821,117	-0.98%
9/20/2023	\$18.49	\$18.46	\$18.49	956,198	1.58%
9/21/2023	\$17.68	\$17.68	\$17.70	532,159	-4.48%
9/22/2023	\$17.54	\$17.52	\$17.55	351,625	-0.80%
9/25/2023	\$17.81	\$17.79	\$17.82	355,662	1.53%
9/26/2023	\$17.07	\$17.07	\$17.08	557,485	-4.24%
9/27/2023	\$16.95	\$16.95	\$16.96	541,231	-0.71%
9/28/2023	\$16.86	\$16.87	\$16.88	530,212	-0.53%
9/29/2023	\$16.64	\$16.64	\$16.65	738,276	-1.31%
10/2/2023	\$16.80	\$16.81	\$16.84	681,841	0.96%
10/3/2023	\$17.54	\$17.53	\$17.55	795,885	4.31%
10/4/2023	\$18.84	\$18.83	\$18.87	1,192,184	7.15%
10/5/2023	\$18.76	\$18.73	\$18.76	876,944	-0.43%
10/6/2023	\$19.06	\$19.04	\$19.06	569,242	1.59%
10/9/2023	\$18.74	\$18.73	\$18.75	558,537	-1.69%
10/10/2023	\$19.35	\$19.33	\$19.35	585,466	3.20%
10/11/2023	\$18.43	\$18.44	\$18.45	672,985	-4.87%
10/12/2023	\$17.54	\$17.54	\$17.57	2,483,602	-4.95%

**Source:** CRSP.**Note:** [1] Computations performed by Crowninshield Financial Research, Inc.

Exhibit-5													
Institutional Holdings of Cassava Stock During the Class Period													
Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
Accurate Wealth Management LLC	-	-	-	-	-	-	-	-	-	75	-	-	-
ACT Capital Management, L.L.C.	-	-	-	45,000	-	-	-	-	3,400	3,400	3,400	3,400	3,400
AdvisorNet Wealth Partners	-	-	-	-	87	173	-	-	-	-	-	-	-
Advisory Services Network, LLC	660	-	-	-	1,413	16,175	5,974	6,179	5,054	10,854	20,454	19,900	19,500
AHL Partners LLP	-	-	-	-	-	181	-	-	-	-	-	-	-
Algert Global LLC	-	-	-	-	3,531	-	-	-	-	-	-	-	-
AllianceBernstein L.P.	125,400	87,500	36,900	45,200	37,700	37,300	37,400	38,200	38,200	38,200	38,200	38,200	38,200
Allianz Global Investors GmbH	-	-	-	-	671	671	-	-	-	-	-	-	-
Allspring Global Investments, LLC	23,446	118,247	17,819	7,017	-	-	-	-	615	601	906	2,654	4,633
AllSquare Wealth Management LLC	270	270	312	312	498	498	498	498	498	498	498	498	498
Allworth Financial, L.P.	-	-	-	-	-	-	-	-	242	-	19	-	58
Alpha DNA Investment Management LLC	-	-	66	-	-	-	-	-	-	-	-	-	-
Alps Advisors, Inc.	-	-	-	-	-	-	-	-	-	28,306	27,500	30,687	31,021
Amalgamated Bank Institutional Asset Management & Custody	-	-	-	7,224	6,806	6,734	6,239	6,028	6,124	6,124	5,322	6,008	6,008
Amalgamated Financial Corp._NLE	-	-	-	-	-	-	6,239	6,239	6,239	6,239	6,239	-	-
American Century Investment Management, Inc.	-	-	-	-	-	-	-	1,285	1,697	1,516	1,104	1,104	1,104
American Portfolios Advisors, Inc.	-	-	-	-	8,200	-	-	-	2,300	2,300	2,300	2,300	2,300
Ameritas Advisory Services, LLC	-	-	-	-	-	-	-	-	-	-	30	-	-
Ameritas Investment Partners, Inc.	2,047	2,047	2,762	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,951
Anchor Investment Management, LLC	-	-	-	-	185	-	-	-	-	-	-	-	-
Ancora Advisors, L.L.C.	-	-	-	-	500	500	500	-	500	500	500	500	500
Andbank Wealth Management, SGHC, S.A.U.	-	-	-	-	-	-	-	-	-	-	-	-	1,132
Aperio Group, LLC	-	-	1,671	4,365	6,037	4,475	4,698	6,977	13,827	15,047	7,487	8,370	12,284
Apollon Wealth Management, LLC	-	-	6,063	6,444	8,369	8,644	9,046	9,124	7,200	7,083	9,868	8,650	10,601
AQR Capital Management, LLC	60,370	27,897	17,122	17,322	11,660	11,634	11,372	-	5,132	-	-	-	-
Aquatic Capital Management LLC	-	-	-	-	-	700	-	-	-	200	-	-	-
Aristides Capital, L.L.C.	-	-	-	-	-	29,800	34,800	-	6,196	-	-	-	-
Aristotle Pacific Capital, LLC	1,359	1,667	3,296	-	-	-	-	-	-	-	-	-	-
Arizona State Retirement System	-	-	-	10,080	10,353	10,231	10,276	10,302	10,347	10,749	11,488	11,140	11,293
Assenagon Asset Management S.A.	459	786	712	824	713	705	693	702	683	675	699	600	732
Atom Investors LP	-	-	10,474	-	-	-	-	-	-	-	-	-	-
Avantax Advisory Services, Inc.	15,750	-	-	2,675	3,513	-	-	-	-	-	-	-	-
Avantis Investors	-	-	-	-	-	-	-	1,285	1,285	1,285	1,285	1,285	1,285
Avior Wealth Management, LLC	-	-	-	-	-	731	731	-	-	-	-	-	-
Axiom Investment Management, LLC	-	-	-	-	-	-	-	-	200	-	-	-	-
B. Riley Wealth Advisors, Inc.	-	-	-	8,014	-	-	-	-	4,895	-	-	-	-
B. Riley Wealth Management, Inc.	-	-	4,835	5,061	4,115	-	-	-	-	-	-	-	-
Baird Investment Management	-	-	48,879	38,295	41,933	41,569	14,045	13,679	12,653	12,396	16,999	14,020	-
Balyasny Asset Management LP	-	-	-	-	-	-	-	-	6,783	-	9,393	30,719	149,888
Bank Julius Bär & Co. AG	-	-	11,500	11,002	-	400	-	-	-	-	-	-	-
Bank of Montreal Europe PLC	-	-	-	-	-	-	-	-	-	-	-	-	29,000
Bank of Nova Scotia	-	-	11,764	-	-	-	-	-	-	-	-	-	-
Bank Vontobel AG	-	-	-	-	9,450	-	-	-	-	-	-	-	-
Banque Cantonale Vaudoise	-	-	-	10,000	-	-	-	-	2,000	-	-	-	-
Barclays Bank (Suisse) S.A.	-	-	-	-	-	-	-	-	-	-	2,000	-	3,000
Barclays Bank PLC	10,618	10,552	27,332	4,841	48,329	110,962	24,215	20,534	21,542	19,794	30,401	19,891	23,702
Barclays Capital	-	-	-	-	8,471	-	-	-	-	-	-	-	-
Barclays Capital Inc.	62	62	-	-	1	46	46	106	-	23,862	100	100	-
BDO Wealth Advisors, LLC	-	-	-	-	200	600	600	600	600	600	600	600	600
Beard Harris Wealth Management, LLC	-	-	-	-	-	100	-	-	-	-	-	-	-
Bedel Financial Consulting, Inc.	-	-	-	-	-	28	28	-	-	-	-	-	-
Bell Investment Advisors, Inc.	-	-	-	-	-	-	-	-	-	14	-	-	-
Bellwether Wealth	-	-	-	-	27,769	-	-	-	-	-	-	-	-
Belpointe Asset Management LLC	-	-	-	-	-	-	-	-	-	25	25	-	-
Belvedere Trading, LLC	-	-	-	13,147	-	-	-	-	341	4,022	-	7,853	-
Benjamin F. Edwards & Company, Inc.	-	-	-	-	253	153	153	153	153	153	153	153	153
BerganKDV Wealth Management, LLC	-	-	-	-	50	50	50	50	50	50	50	50	50
Berman Capital Advisors, LLC	994	994	994	994	914	914	914	914	914	914	914	914	-
Bessemer Trust Company, N.A. (US)	-	-	-	150	150	150	150	150	-	-	-	-	-



Exhibit-5													
Institutional Holdings of Cassava Stock During the Class Period													
Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
BG Fund Management Luxembourg S.A.	-	-	-	-	5,544	5,544	5,544	5,544	5,544	5,544	5,544	5,544	5,544
BlackRock (Netherlands) B.V.	-	-	-	4,047	3,101	7,695	7,695	7,695	8,054	3,609	3,609	3,609	3,609
BlackRock Advisors (UK) Limited	-	-	-	30,965	23,988	25,694	26,184	30,272	30,314	36,151	37,472	43,789	41,486
BlackRock Advisors, LLC	-	-	-	-	-	-	584	-	-	-	-	-	-
BlackRock Asset Management Canada Limited	-	-	576	576	576	576	576	424	424	3,841	14,584	13,723	19,400
BlackRock Asset Management Ireland Limited	-	-	-	26,619	19,645	21,583	21,838	25,926	25,968	29,991	31,988	37,629	35,326
BlackRock Financial Management, Inc.	58,254	63,830	79,602	120,328	210,615	241,027	239,858	181,671	94,395	91,442	96,598	100,536	103,105
BlackRock Fund Advisors	-	-	-	-	1,023	584	584	-	4,932	5,608	4,487	4,836	4,631
BlackRock Institutional Trust Company, N.A.	1,290,720	1,806,923	2,209,429	2,167,071	2,197,597	2,330,354	2,270,380	2,298,375	2,220,446	2,297,809	2,343,214	2,456,096	2,542,142
BlackRock Investment Management (Australia) Ltd.	-	-	-	-	120	120	120	120	120	120	120	120	120
BlackRock Investment Management (UK) Ltd.	-	-	-	7,655	48,519	43,319	48,332	40,042	23,198	26,554	28,432	28,432	27,833
BlackRock Investment Management, LLC	96,323	100,016	113,644	120,185	113,511	106,489	105,216	98,101	99,167	95,993	96,645	98,393	95,165
BlackRock Japan Co., Ltd.	-	-	-	1,033	4,157	5,340	5,168	2,389	122	122	-	-	-
Bleichroeder LP	684,503	284,314	500,000	375,000	-	12,500	5,000	5,000	5,000	-	-	-	-
BMO Capital Markets (US)	1,064	5,081	940	5,601	-	-	-	-	-	-	-	-	1,195
BN & Partners Deutschland AG	-	-	-	-	3,000	-	-	-	-	-	-	-	-
BNP Paribas Securities Corp. North America	6,300	6,300	9,951	1,467	6,872	20,554	3,460	221,265	129,192	5,661	16,044	10,445	20,418
BNY Mellon Asset Management	48,676	81,213	80,140	89,921	94,176	89,422	90,159	91,872	104,256	105,438	104,113	107,623	110,469
BNY Mellon Wealth Management	-	-	-	15	229	25	-	-	24	26	-	231	162
BofA Global Research (US)	102,718	13,604	34,641	24,396	151,670	275,107	29,645	142,453	266,000	101,027	218,769	173,710	621,803
Brookstone Capital Management, LLC	-	-	-	-	-	-	-	-	-	-	-	16,753	16,753
Byrne Asset Management LLC	-	-	-	-	-	2,158	3,541	2,311	2,183	2,694	1,945	2,290	2,520
C. M. Bidwell & Associates, Ltd.	-	-	-	-	-	-	-	-	-	-	-	6,404	-
CA Indosuez (Switzerland) S.A.	-	-	-	-	-	400	400	400	-	-	-	-	-
CaaS Capital Management LP	-	687,260	-	-	-	-	-	-	-	-	-	-	-
California Public Employees' Retirement System	14,285	66,063	66,063	-	-	-	-	-	-	-	-	-	-
California State Teachers Retirement System	34,944	49,446	49,297	52,739	51,956	53,038	48,932	48,625	47,826	48,347	49,012	48,130	43,824
Cambridge Investment Research Advisors, Inc.	-	-	-	8,698	19,291	16,037	15,893	13,802	14,608	13,458	14,766	11,966	10,026
Cantor Fitzgerald, L.P.	-	-	-	-	-	-	-	-	-	-	46,200	-	170,700
Capital Advisors, Ltd., LLC	-	-	-	-	-	-	-	-	-	309	-	309	309
Capital Fund Management S.A.	-	-	-	-	-	-	-	-	-	-	-	18,700	19,965
Caption Management, LLC	-	-	-	45,000	-	-	-	-	600	-	-	-	-
CAPTRUST Financial Advisors	-	-	4	140	140	150	877	891	-	-	-	-	-
Capula Investment Management LLP	-	-	-	-	7,091	-	-	-	-	-	-	-	-
Carmichael Hill & Associates Inc	-	-	-	-	6	-	-	-	-	-	-	-	-
Carolina Wealth Advisors, LLC	-	-	-	-	-	-	-	-	48	48	48	48	48
Carson Wealth Management Group	-	-	200	200	200	-	278	278	278	278	278	278	14
Castle Rock Wealth Management, LLC	-	-	-	-	2,593	-	-	-	-	-	-	-	-
Centura Wealth Advisory	-	-	-	-	-	-	-	-	9,866	7,366	-	8,723	-
Cetera Advisor Networks LLC	16,460	32,660	9,515	10,047	18,095	22,155	24,972	11,730	31,871	-	-	-	10,867
Cetera Advisors LLC	-	-	-	-	-	5,444	-	-	-	-	-	-	-
Charles Schwab Investment Management, Inc.	56,937	77,183	83,036	95,077	262,291	267,500	273,962	267,611	274,938	280,111	290,816	295,407	304,721
CIBC Asset Management Inc.	-	-	1,118	1,118	1,607	1,877	1,877	1,749	1,749	1,102	1,097	1,097	1,097
Citadel Advisors LLC	28,389	65,378	247,729	311,538	21,356	-	-	9,449	-	32,234	138,257	151,905	8,798
Citi Investment Research (US)	1,114	6,312	6,059	9,510	38,901	22,781	15,791	19,286	14,799	13,331	15,382	23,381	13,868
City National Rochdale, LLC	-	-	-	-	100	300	300	300	300	300	300	300	300
ClariVest Asset Management LLC	-	-	-	-	5,203	-	-	-	-	-	-	-	-
Clear Creek Financial Management, LLC	-	-	-	-	5,105	10,780	15,830	26,980	15,880	67,270	97,992	95,583	104,340
CM Management, LLC	-	175,000	-	-	-	-	-	-	-	-	-	-	-
Coe Capital Management, L.L.C.	-	-	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	-	-
Columbia Threadneedle Investments (US)	-	12,233	14,693	6,051	11,570	6,060	-	-	7,111	7,481	32,774	27,102	19,603
Commonwealth Financial Network	-	-	9,648	15,232	10,625	11,820	12,887	13,626	16,410	23,454	29,806	32,383	37,138
Concept Asset Management	-	-	-	-	-	-	-	-	-	1,143	1,143	1,143	1,143
Concourse Financial Group Securities, Inc	-	-	-	-	-	-	-	1,333	1,333	2,443	2,443	2,443	2,443
Connor, Clark & Lunn Investment Management Ltd.	-	-	-	-	6,137	-	-	-	-	-	-	-	-
Corton Capital Inc	-	-	-	-	-	-	-	-	5,516	-	-	-	-
Covestor, Ltd.	-	-	-	-	-	11	8	6	5	5	5	5	4
Cowen & Co., LLC	-	-	-	-	175,000	12,700	-	-	19,467	-	-	-	-
Creative Financial Designs, Inc.	-	-	-	-	-	10	140	140	140	140	140	140	140

Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
Creative Planning, Inc.	42,598	14,148	18,498	-	18,173	18,923	14,738	12,405	13,123	12,974	11,491	12,616	-
Credit Suisse Funds AG	-	-	-	20,422	24,044	25,574	29,465	33,372	31,597	42,015	44,711	49,239	47,623
Credit Suisse International	-	-	-	28	45	6,553	6,156	4,004	1,936	-	12	-	-
Credit Suisse Securities (USA) LLC	-	-	-	1,088	2,641	901	996	480	213	1	-	-	-
CSS, LLC	-	-	-	9,166	25,800	8,381	-	-	-	-	-	-	-
Cubist Systematic Strategies, LLC	22,200	-	-	10,500	6,569	918	-	-	18,036	-	-	-	-
Cutler Group, LP	3,425	3,600	16,796	17,098	18,912	6,500	9,200	9,960	21,200	22,700	5,800	5,100	1,600
CX Institutional, L.L.C.	-	-	-	-	-	-	-	800	-	-	-	-	-
D. E. Shaw & Co., L.P.	-	-	-	59,990	49,269	-	44,400	-	-	-	-	13,136	16,553
Dafna Capital Management, LLC	-	450,000	-	-	-	-	-	-	-	-	-	-	-
Danske Bank Asset Management	-	-	-	1,600	1,300	1,300	1,800	2,800	1,900	1,900	900	1,199	1,200
Dark Forest Capital Management LP	-	-	-	-	-	-	-	-	-	-	1,378	9,270	10,264
Darwin Wealth Management, LLC	-	-	-	-	-	-	6,293	-	6,293	6,293	-	-	-
Delphia (USA) Inc	-	-	-	-	-	-	-	5,618	-	-	-	-	-
Deutsche Asset Management Americas	-	-	-	-	71,200	-	-	-	-	-	-	-	-
DFPG Investments, LLC	-	-	-	-	4,700	-	-	-	-	-	-	-	-
Dimensional Fund Advisors, L.P.	28,750	28,750	26,587	26,360	3,856	-	-	-	6,227	-	-	-	6,063
Dimensional Fund Advisors, Ltd.	3,613	3,613	2,015	2,015	2,015	-	-	-	-	-	-	-	-
Dumont & Blake Investment Advisors, LLC	-	-	-	-	-	6,000	-	-	-	-	-	-	-
Duncker, Streett & Co., L.L.C.	-	-	-	-	-	-	-	200	200	200	200	200	-
DWS Investment GmbH	-	-	-	1,678	1,745	1,653	1,755	1,755	-	-	1,755	1,956	1,956
DWS Investment Management Americas, Inc.	-	-	508	1,532	3,472	1,212	1,212	3,482	3,482	3,482	10,063	3,275	2,068
DWS Investments UK Limited	11,792	22,935	20,933	22,774	22,004	23,353	21,127	18,509	15,958	17,968	19,393	17,012	19,490
EAM Global Investors LLC	-	-	39,301	31,644	-	-	-	-	-	-	-	-	-
EAM Investors, LLC	-	-	60,831	22,447	-	-	-	-	-	-	-	-	-
Eaton Vance Management	-	-	-	175	75	75	-	-	-	-	-	-	-
Econ Wealth Management LLC	-	-	-	-	-	73	73	-	-	-	-	-	-
Ellevest, Inc.	-	-	-	3	7	3	3	-	-	-	-	-	-
Engineers Gate Manager, L.P.	-	-	15,420	-	-	7,532	-	-	-	-	13,689	-	-
Ensign Peak Advisors, Inc.	-	-	-	-	-	11,250	11,250	11,250	10,230	12,830	15,280	15,280	15,280
Envestnet Asset Management, Inc.	-	-	-	-	-	5,001	6,737	9,718	6,846	7,721	7,721	-	-
Equitec Proprietary Markets, LLC	-	-	-	-	1,900	-	-	-	300	-	-	-	-
Essex LLC	-	-	-	-	13,284	10,660	12,057	12,524	22,669	15,201	15,201	16,914	12,154
ETF Managers Group, LLC	-	-	20,360	-	-	-	-	-	13,571	2,523	-	-	-
Ethical Capital Opportunity Advisors Ltd	-	-	-	-	-	-	-	-	-	-	-	36,413	36,413
EverSource Wealth Advisors, LLC	-	-	-	-	-	5	5	5	5	5	5	5	5
Exchange Traded Concepts, LLC	-	-	-	-	-	-	-	-	835	-	-	-	-
ExodusPoint Capital Management, LP	288,370	76,437	-	-	23,487	-	7,275	-	-	-	-	-	-
Federated MDTA LLC	-	-	133	75	-	-	-	1,527	4,160	-	-	-	-
Fidelity Institutional Asset Management	-	-	2,754	-	-	-	-	-	-	-	-	-	-
Fidelity Management & Research Company LLC	-	-	6,505	5	-	-	610	570	4,955	4,650	1,668	2,142	5,022
Fiduciary Trust International, LLC	-	-	-	-	-	-	-	-	-	-	-	10	-
Financial Avengers, Inc.	-	-	-	-	10	10	10	10	-	-	-	-	-
First Heartland Consultants, Inc.	-	-	-	-	5,115	5,515	-	-	-	-	-	-	-
First Midwest Trust Company	156,312	159,878	25,579	24,547	-	-	-	-	-	-	-	-	-
Florida State Board of Administration	13,150	13,150	12,650	14,659	15,279	14,549	14,549	15,879	15,879	12,149	12,149	11,289	11,499
FNY Investment Advisers LLC	-	-	-	921	-	-	-	10	-	-	-	-	-
Founders Capital Management, Inc.	-	-	-	-	105	105	105	70	70	70	70	70	70
Fox Run Management, L.L.C	-	-	6,257	-	-	-	-	-	-	-	-	-	-
Franklin Advisers, Inc.	-	-	-	-	-	-	-	-	-	-	-	8,398	-
Franklin Mutual Advisers, LLC	1,619	1,619	1,827	1,989	1,989	1,901	1,901	1,697	1,697	1,697	1,697	1,749	1,749
Gabelli Funds, LLC	1	1	1	1	1	1	1	1	-	-	-	-	-
Gallacher Capital Management, LLC	-	-	-	-	-	-	-	-	-	588,533	587,919	583,292	577,824
Geneos Wealth Management Inc	144	244	244	244	439	439	339	339	-	-	-	-	75
Geode Capital Management, L.L.C.	305,587	457,820	561,677	632,181	638,473	636,424	645,847	673,542	684,851	708,792	758,956	803,306	830,250
Gesiuris Asset Management S.G.I.I.C., S.A.	-	-	-	-	-	-	-	5,584	10,000	11,964	11,964	11,964	11,964
GLG Partners LP	-	-	-	404	342	-	-	-	825	-	-	425	420
Global Retirement Partners, LLC	-	-	-	500	500	-	500	500	500	500	-	-	-
GMT Capital Corp.	-	-	-	-	-	-	-	-	115,100	-	-	-	-

Exhibit-5													
Institutional Holdings of Cassava Stock During the Class Period													
Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
GoalVest Advisory, LLC	-	-	-	-	-	-	1,372	495	507	511	746	746	746
Golden Corner Wealth Advisors	-	15,879	5,021	7,786	33,507	16,387	14,806	-	5,445	-	-	-	-
Goldman Sachs & Company, Inc.	-	-	-	2,438	8,694	5,949	-	-	21,734	96,598	20,471	16,770	15,678
Goldman Sachs Asset Management International	-	-	2,276	2,353	693	1,639	615	185	1,146	1,960	185	185	185
Goldman Sachs Asset Management, L.P.	12,543	19,448	48,314	62,714	43,263	48,964	39,196	37,557	55,061	62,649	43,042	48,750	37,525
Gotham Asset Management, LLC	-	-	-	39,726	-	-	-	-	-	-	-	-	-
Gradient Investments LLC	-	-	-	-	-	-	-	-	-	-	400	-	-
Graves-Light Private Wealth Management, Inc.	-	-	-	4	4	-	-	-	-	-	-	-	-
Greenlight Capital, Inc.	-	-	-	-	-	40,620	-	-	-	-	-	-	-
Grimes & Company, Inc.	-	-	-	4,692	4,692	-	-	-	-	-	-	-	-
Group One Trading, L.P.	123,169	61,789	420,383	544,585	407,852	86,662	228,764	23,682	-	104,520	-	45,936	-
GSA Capital Partners LLP	-	18,646	-	5,104	-	-	-	-	-	-	-	-	-
GTS Securities LLC	-	-	-	-	-	-	-	-	-	-	-	30,336	-
Guggenheim Investments	-	-	-	-	25,697	34,846	30,872	29,808	-	-	997	1,015	1,015
GWL Investment Management Ltd.	-	-	-	2,064	2,064	2,064	2,064	2,064	2,064	2,064	2,064	2,064	5,072
GWM Advisors LLC	-	-	-	-	-	-	-	-	-	450	450	50	50
H. M. Payson & Co.	-	-	18	45	65	65	71	71	96	50	50	50	50
Hancock Horizon Investments_NLE	-	5,000	2,500	2,500	938	938	938	938	938	938	938	-	-
Handelsbanken Kapitalförvaltning AB	-	-	-	14,400	14,500	10,200	10,200	10,000	10,000	9,300	9,800	9,800	-
HAP Trading, LLC	-	-	-	10,426	13,848	-	-	-	-	-	-	-	-
Harbour Investments, Inc	-	-	270	1,060	750	250	250	260	260	260	260	260	1,060
Harvest Investment Services, LLC	-	-	-	8,267	27,990	32,772	-	-	-	10,530	-	-	-
Harvest Volatility Management LLC	-	-	-	-	-	210	210	223	189	189	203	203	-
Headlands Technologies LLC	-	-	-	-	-	-	-	-	-	-	-	9	2,173
Hennion & Walsh Asset Management, Inc.	-	-	-	-	-	-	-	-	-	16,800	20,234	20,643	22,248
Heritage Wealth Management, LLC	-	-	-	-	10	10	10	10	10	20	20	20	20
Highlander Capital Management, LLC	-	-	-	-	-	1,000	-	-	-	-	-	-	-
Hightower Advisors, LLC	-	-	6,000	6,300	29,857	14,037	12,370	-	6,320	-	-	-	-
HighVista Strategies LLC	-	-	-	2,488	-	-	-	-	-	-	-	-	-
Householder Group Estate and Retirement Specialist LLC	-	-	-	-	-	-	-	-	-	-	-	-	15
Howe and Rusling, Inc.	-	-	6	6	10	10	10	10	10	-	-	-	-
HRT Financial LP	-	-	-	-	-	-	-	9,630	-	-	19,289	15,417	-
HSBC Global Asset Management (UK) Limited	-	-	-	-	-	-	-	-	-	68	68	68	1,043
Hudock Capital Group, LLC	-	-	391	218	64	92	35	9	-	-	-	-	-
Humankind Investments LLC	-	-	-	-	-	-	-	170	193	139	182	-	-
ICA Group Wealth Management, LLC	-	-	-	-	-	-	-	-	-	50	50	-	-
IFAM Capital	-	-	-	-	-	50	-	-	-	-	-	-	-
Ikarian Capital LLC	-	-	-	5,362	-	-	-	-	-	-	-	-	-
IMC Chicago, LLC	-	-	-	11,465	-	-	-	10,132	-	62,149	-	-	-
Impact Partnership Wealth, LLC	-	-	-	-	-	-	-	-	-	-	-	-	1,526
Independent Advisor Alliance, LLC	-	-	-	-	-	-	-	-	-	-	25,650	-	-
Independent Financial Partners	-	-	200	201	214	216	466	466	464	464	464	464	472
Intersect Capital, LLC	20,000	20,000	-	2,252	-	-	-	-	-	-	-	-	-
Intrepid Family Office LLC	-	-	-	-	-	33,400	35,000	25,000	25,000	25,000	15,000	15,000	12,500
Invesco Advisers, Inc.	-	12,457	11,438	13,324	13,765	16,285	15,908	15,398	17,093	15,485	16,180	16,612	16,255
Invesco Capital Management LLC	3,085	-	7,940	159,740	4,376	278	313	334	238,994	404,805	279,442	558	558
Investors Financial Group, LLC	-	87,250	6,400	6,100	5,100	5,100	-	-	-	-	-	-	-
IVC Wealth Advisors, L.L.C.	-	-	6,870	9,895	9,875	12,575	14,290	14,415	14,815	15,298	13,698	16,298	16,298
J.P. Morgan Investment Management, Inc. (SI)	-	-	-	-	-	-	-	-	-	180	212	212	212
J.P. Morgan Private Wealth Advisors LLC	-	-	-	-	2,605	3,831	2,162	2,480	2,480	2,480	2,480	-	-
J.P. Morgan Securities LLC	-	-	36,118	-	-	-	-	21,058	-	-	-	-	-
J.P. Morgan Securities plc	-	37	256	2,572	81	111	-	-	-	445	754	334	-
Jackson Hole Capital Partners, LLC	-	-	-	-	4,660	-	-	-	-	-	-	-	-
Jacobi Capital Management, LLC	-	-	-	-	2,000	-	-	-	-	-	-	-	-
Jaffetilchin Investment Partners LLC	-	-	-	-	-	-	-	-	7,703	-	-	-	-
Jane Street Capital, L.L.C.	13,732	56,278	72,760	174,831	148,650	109,043	13,231	15,203	22,935	8,834	21,556	43,990	13,520
Janney Montgomery Scott LLC	-	-	7,085	7,172	7,193	10,333	12,486	-	13,303	13,272	13,965	20,428	24,224
Janus Henderson Investors	-	-	-	-	-	-	7,532	7,533	-	7,534	16,690	16,662	16,671
JBF Capital, Inc.	4,000	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit-5													
Institutional Holdings of Cassava Stock During the Class Period													
Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
Jefferies LLC	100,000	125,000	13,000	11,865	-	-	-	59,063	34,753	38,033	133,534	130,518	237,025
JP Morgan Asset Management	-	-	-	8,596	8,873	9,733	10,774	14,415	14,284	16,639	48,853	55,286	49,203
JPMorgan Private Bank (United States)	8,640	14,474	12,259	14,689	14,095	14,751	17,944	20,393	20,842	22,281	-	-	-
Jump Financial, LLC	89,719	64,282	-	-	8,819	6,801	-	-	-	-	-	-	103,135
Kestra Advisory Services, LLC	-	-	5,055	5,615	9,237	6,022	8,372	34,997	-	6,917	-	-	-
Kestra Private Wealth Services, LLC	-	-	50,200	-	70,000	-	31,500	31,500	31,500	-	-	-	-
Kieger AG	-	-	-	-	-	-	-	-	-	-	-	13,000	13,000
KLP Fondsforvaltning AS	-	-	-	6,000	6,000	6,000	6,000	6,000	6,000	7,000	7,000	7,000	7,000
L&S Advisors Inc.	-	-	-	6,000	-	-	-	-	-	-	-	-	-
L2 Asset Management, LLC	-	-	-	26	32	49	49	64	64	74	74	-	-
Ladenburg Thalmann Asset Management Inc. (LTAM)	2,200	2,200	2,200	2,200	2,200	-	-	-	-	-	-	-	-
Larson Financial Group LLC	-	-	-	-	42	-	-	-	39	39	100	100	100
Leavell Investment Management, Inc.	-	-	-	-	-	-	-	11,200	-	-	-	-	-
Legacy Consulting Group.	-	-	-	-	-	-	-	500	-	-	-	-	-
Legal & General Investment Management Ltd.	2,356	3,064	2,988	8,946	33,795	33,947	35,186	34,366	34,731	34,588	37,125	37,430	37,496
Leo Wealth, LLC	-	-	-	4,000	4,675	4,675	-	-	-	-	-	-	-
Lindbrook Capital, LLC	-	-	-	-	-	-	41	79	361	409	90	60	131
Loring, Wolcott & Coolidge Fiduciary Advisors, LLP	-	-	-	95	95	95	95	95	95	95	95	95	-
Los Angeles Capital Management LLC	-	-	-	-	-	-	487	-	708	248	248	248	248
LPL Financial LLC	-	-	-	-	20,227	38,715	37,033	44,017	39,996	42,296	52,012	44,574	45,197
LSV Asset Management	-	-	3,916	-	-	-	-	-	-	-	-	2,330	2,330
MacKay Shields LLC	-	-	6,300	-	-	-	-	-	-	-	-	-	-
Mackenzie Financial Corporation	-	-	-	1,193	3,509	3,293	5,605	6,626	6,240	6,369	6,364	6,368	6,355
Macquarie Investment Management	-	-	-	-	-	-	-	1,454	1,454	-	-	-	-
Macquarie Investment Management Global Ltd.	-	-	-	-	2,141	2,141	1,454	-	-	-	-	-	-
MAI Capital Management, LLC	-	-	-	-	-	-	-	-	-	6,782	-	-	-
MainStreet Advisors	-	-	-	-	-	-	-	5,900	5,900	14,120	14,120	14,120	14,120
Manulife Investment Management (North America) Limited	13,262	20,369	17,672	21,336	19,709	19,357	15,700	15,581	14,944	14,774	15,429	16,203	15,592
Marshall Wace LLP	19,940	407,806	478,735	-	-	-	-	-	157,325	-	-	24,348	-
Martingale Asset Management, L.P.	-	-	-	-	-	-	-	-	-	-	-	15,747	15,747
Maverick Capital, Ltd.	-	-	-	1,637	-	-	-	-	-	-	-	-	-
McAdam, LLC	-	-	5,358	5,464	6,367	6,108	6,209	-	6,190	6,190	-	-	-
McCarthy Asset Management, Inc	-	-	100	85	60	68	68	-	-	-	-	-	-
Meeder Asset Management, Inc	-	-	-	-	1,899	-	300	300	300	-	-	-	-
Mellon Investments Corporation	86,612	86,388	49,823	41,423	29,146	32,834	32,834	24,514	24,514	24,186	23,172	23,511	24,473
Mercer Global Investments Management Ltd	-	-	-	8,400	9,710	9,450	9,450	9,450	9,450	9,450	11,904	11,904	11,904
MetLife Investment Management, LLC	-	15,896	12,675	13,762	13,762	13,762	21,812	20,720	20,720	19,739	19,739	20,422	20,422
Metropolitan Life Insurance Co. (US)	-	11,107	9,122	10,536	10,784	10,784	2,373	2,373	2,373	2,373	2,153	2,153	2,530
MGO One Seven LLC	-	-	-	-	-	-	-	-	5,432	-	-	-	-
Millennium Management LLC	-	-	228,976	43,915	116,851	-	-	-	9,051	20,902	54,092	9,313	-
Mirae Asset Global Investments (USA) LLC	-	-	-	-	-	-	-	11,545	16,475	16,475	16,475	16,475	16,475
Money Concepts Capital Corp	-	-	-	-	-	-	10	-	-	2,010	-	-	-
MONTAG Wealth Management	-	-	-	595	595	500	500	1,000	1,000	1,000	1,000	1,000	1,500
Morgan Stanley & Co. International Plc	-	-	-	-	-	6	-	149	3	27	395	-	-
Morgan Stanley & Co. LLC	2,010	24,264	38,994	63,066	264,556	482,989	58,076	104,169	52,667	37,288	66,207	70,924	62,118
Morgan Stanley Investment Management Inc. (US)	1,623	1,623	2,719	238	1,159	1,093	981	910	912	763	777	773	885
Morgan Stanley Smith Barney LLC	31,563	26,848	184,368	99,427	88,754	70,600	88,618	91,716	142,272	153,460	70,663	77,381	355,558
National Bank of Canada	-	-	-	-	-	192,340	118,110	275	20,460	660	610	610	116,310
NBC Securities, Inc.	-	-	-	-	-	-	-	-	-	-	-	-	4,000
Neo Investimentos	-	-	-	-	-	-	-	-	-	-	-	-	694
Neo Ivy Capital Management LLC	-	-	-	665	-	-	-	-	-	-	-	-	-
Neuberger Berman, LLC	-	-	7,000	22,000	35,000	38,000	43,000	48,000	48,072	48,117	48,271	48,228	64,177
New Jersey Division of Investment	-	-	-	-	26,008	-	-	-	-	-	-	-	-
New York State Common Retirement Fund	20,900	20,900	29,100	33,038	27,698	27,673	27,634	27,563	27,599	27,613	19,827	15,601	15,719
NewSquare Capital LLC	-	-	-	-	-	-	-	-	-	12	12	12	-
NISA Investment Advisors, L.L.C.	-	700	24,400	1,100	1,106	300	260	1,160	687	287	960	1,070	530
Nomura Securities Co., Ltd.	-	-	-	10,250	-	-	-	-	-	-	-	-	-
Norges Bank Investment Management (NBIM)	-	-	-	-	289,841	289,841	289,841	294,039	294,039	330,042	330,042	330,042	330,042
Northern Trust Global Investments	17,282	26,742	26,123	30,149	34,198	33,798	34,910	35,596	36,178	35,764	34,612	36,503	33,951

Exhibit-5													
Institutional Holdings of Cassava Stock During the Class Period													
Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
Northern Trust Global Investments Limited	-	-	-	3,608	914	5,658	6,741	6,741	6,741	10,463	12,106	11,467	14,124
Northern Trust Investments, Inc.	240,818	322,276	314,198	200,607	345,543	340,371	322,841	316,009	310,018	306,316	313,705	322,668	325,559
Northwestern Mutual Capital, LLC	-	-	-	-	-	-	123	-	-	2	-	-	-
Numeric Investors LLC	-	-	-	4,818	3,400	6,807	-	-	-	-	-	-	-
Nuveen LLC	91,449	611,863	477,841	404,459	337,962	237,411	246,151	159,841	154,315	235,219	235,371	239,723	190,871
Nykredit Bank AS	-	-	-	828	627	627	358	358	358	358	358	358	358
Occudo Quantitative Strategies LP	-	-	-	-	-	-	-	-	4,911	-	16,178	-	-
Optimum Investment Advisors, LLC	-	-	-	-	-	30	-	-	-	-	-	-	-
Osaic Holdings, Inc.	19,910	14,274	58,889	21,915	38,288	43,253	60,401	48,684	38,507	95,166	118,812	109,122	128,644
O'Shaughnessy Asset Management, LLC	-	61	608	-	493	-	-	-	-	986	826	-	-
PanAgora Asset Management Inc.	1,757	2,457	4,775	3,562	-	-	-	-	-	-	-	-	-
Parallax Volatility Advisers, L.P.	-	-	-	-	-	-	-	-	28,445	25,758	110	8,490	-
Parallel Advisors, LLC	-	-	10	20	20	12	10	10	10	10	33	10	10
Parametric Portfolio Associates LLC	-	-	27,848	15,095	15,242	18,858	14,159	19,553	22,089	23,897	14,411	22,071	14,680
Personal Wealth Partners, LLC	-	-	-	1,000	-	-	-	-	-	-	-	-	-
PFS Partners, LLC	-	-	-	-	-	200	200	200	200	200	200	200	200
PGIM Quantitative Solutions LLC	-	-	-	2,995	3,360	-	-	-	-	-	-	-	-
Pictet Asset Management Ltd.	-	-	-	2,409	-	-	1,676	1,676	1,676	1,676	1,676	1,676	1,676
Pinnacle Private Wealth LLC	-	-	-	-	-	16,600	16,600	-	-	-	-	-	-
Plante Moran Financial Advisors, LLC	-	-	-	-	4,000	-	-	-	-	-	-	-	-
PNC Investments LLC	-	-	2,025	4,383	4,130	4,130	4,130	3,130	3,130	3,130	3,130	2,395	2,285
Point72 Asset Management, L.P.	125,000	-	-	-	-	-	-	-	-	-	-	-	-
Point72 Hong Kong Limited	-	-	-	-	105	3,732	-	-	1,031	-	-	-	-
Polen Capital Management, LLC	-	-	32,967	32,967	7,295	7,295	7,295	7,295	7,295	7,295	-	-	-
PORTFOLIO INVEST Vermögensmanagement GmbH	-	-	-	-	1,200	1,200	1,200	1,200	-	-	-	-	-
Premier Asset Management, LLC	36,789	78,252	14,490	15,852	-	-	-	-	-	-	-	-	-
Prentice Wealth Management LLC	-	-	30	30	-	-	-	-	-	-	-	-	-
Principal Global Investors (Equity)	2,501	4,169	4,614	126,490	129,366	145,538	101,358	10,410	10,181	10,754	10,000	10,777	10,554
Private Advisor Group LLC	-	-	-	-	-	-	5,450	-	5,100	-	-	-	-
Private Capital Group, LLC	-	-	-	-	9	9	9	-	-	-	-	-	-
ProFund Advisors LLC	419	471	842	1,037	1,152	3,044	3,528	3,511	3,290	3,445	20,963	9,398	13,783
ProShare Advisors LLC	2,835	7,239	8,745	9,926	4,899	8,400	7,176	-	-	4,908	4,490	5,176	5,166
Public Employees' Retirement Association of CO	-	-	-	-	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361	5,361
Quadrant Family Wealth Advisors	-	-	-	-	-	-	-	59	-	-	6	-	-
Quantbot Technologies, LP	-	5,007	-	-	-	-	-	-	100	-	-	-	16,091
Quilter Cheviot Europe Ltd	-	-	-	3,434	-	-	-	-	-	-	-	-	-
Quinn Opportunity Partners LLC	81,000	114,000	13,000	3,000	6,000	-	-	-	-	-	-	-	-
Rafferty Asset Management LLC	-	-	4,075	6,538	15,134	19,642	12,161	8,623	7,485	7,648	9,167	-	-
Ranch Capital Advisors	-	-	-	40	40	-	-	-	-	-	-	-	-
Raymond James & Associates, Inc.	-	-	20,631	18,142	38,087	43,691	53,607	45,030	58,686	61,072	64,664	61,403	73,532
Raymond James Financial Services Advisors, Inc.	-	-	-	3,876	5,731	8,265	11,945	9,280	8,269	9,186	11,246	10,357	14,465
RBC Brewin Dolphin	-	-	280	280	-	-	-	-	-	-	-	-	-
RBC Capital Markets Wealth Management	6,043	1,000	-	2,443	913	1,008	2,258	3,398	3,027	2,715	3,065	3,265	3,550
RBC Capital Partners	-	2,404	2,443	-	189	2,047	-	-	-	628	-	-	-
RBC Dominion Securities, Inc.	-	-	9	163	278	921	585	1,085	460	380	330	345	375
RBC Wealth Management, International	-	-	-	2,620	3,204	5,670	2,439	367	565	5,215	2,133	2,469	4,980
Renaissance Technologies LLC	112,300	-	-	-	-	-	-	-	-	-	-	-	-
Requisite Capital Management LLC	-	-	-	-	-	20,000	-	-	-	-	-	-	-
Reynolds Capital Management, LLC	1,500	-	-	-	-	-	-	-	-	-	1,000	1,500	-
Rhenman & Partners Asset Management AB	-	-	-	115,000	85,000	-	-	-	-	-	-	-	-
Rhumblin Advisers Ltd. Partnership	22,946	33,990	45,438	39,802	40,445	38,914	41,144	46,782	51,407	51,772	52,553	57,001	56,749
Rice Hall James & Associates, LLC	-	-	16,622	-	-	-	-	-	-	-	-	-	-
RMC Investment Advisors	-	-	-	-	100	100	100	100	100	100	100	100	100
Rockefeller Capital Management	-	-	-	-	1,275	1,312	1,275	1,275	6,275	6,298	-	-	-
Roffman Miller Associates, Inc.	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Rubric Capital Management LP	-	-	-	-	-	-	69,401	-	-	-	-	-	-
Russell Investments Limited	-	-	-	-	152	-	-	-	-	-	-	-	-
Russell Investments Trust Company	-	-	32,967	83,946	7,447	7,295	7,295	7,295	7,295	7,295	-	188	273
Salem Investment Counselors, Inc.	-	-	-	-	-	-	-	-	275	275	275	275	275

Exhibit-5													
Institutional Holdings of Cassava Stock During the Class Period													
Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
Sandy Spring Bank	-	-	-	-	500	-	50	50	50	50	50	50	50
Saturna Capital Corporation	-	20,000	55,100	55,100	55,400	55,475	53,375	16,000	16,000	-	-	-	-
Schonfeld Strategic Advisors LLC	-	-	-	-	-	-	-	-	12,000	-	68,215	-	-
Schroder Investment Management (Australia) Ltd.	-	-	-	-	3	3	3	3	3	3	3	3	-
Schweizerische Nationalbank	-	-	-	81,700	84,000	84,000	89,800	89,800	89,800	91,900	85,600	86,400	87,200
Sculptor Capital Management, Inc	30,300	30,300	-	-	236,200	70,300	51,400	-	75,500	71,500	-	-	225,000
Seasons of Advice Wealth Management	-	78	78	228	203	78	78	78	608	278	78	78	78
SEI Investments Management Corporation	-	-	10,849	-	-	-	-	-	-	-	-	-	-
SG Americas Securities, L.L.C.	-	-	5,219	1,637	142,888	5,629	6,413	51,497	5,140	35,437	179,189	147,662	276,432
Shell Asset Management Company B.V.	-	-	-	2,186	2,106	2,064	1,797	1,824	1,611	-	-	-	-
Sigma Planning Corporation	-	-	-	3,123	-	-	-	-	-	-	-	-	-
Signal Iduna Asset Management GmbH	-	-	10,005	10,005	-	-	-	-	-	-	-	-	-
Signaturefd, LLC	-	-	350	378	928	328	328	72	145	121	47	44	80
Simon Quick Advisors, LLC	5,000	-	-	-	-	-	-	-	-	-	-	-	-
Simplex Trading, LLC	23,350	33,398	7,613	49,468	56,882	252	6,041	13,276	2,422	-	4,400	38,751	-
Sittner & Nelson, LLC	-	-	-	-	400	400	400	400	400	800	800	800	800
Smith Asset Management Group, LP	-	-	460	460	280	280	-	-	-	-	-	-	-
Sonoma Wealth Advisors, LLC	-	-	-	3,798	5,096	4,821	-	-	-	-	-	-	-
Souders Financial Advisors, LLC	-	-	-	3,116	-	-	-	-	-	-	-	-	-
Sowell Management Services	18	18	179	-	-	-	-	-	-	-	-	-	-
Spire Wealth Management, LLC	-	-	30	30	30	30	30	30	30	30	30	30	-
Spotlight Asset Group, Inc.	-	-	-	-	-	-	-	-	-	-	-	210	210
Squarepoint Capital LLP	-	98,745	51,785	6,695	36,405	-	14,139	-	20,995	-	-	32,755	-
State of Wisconsin Investment Board	-	32,600	44,800	44,800	55,700	56,300	49,900	40,670	38,597	38,149	38,876	32,615	38,990
State Street Global Advisors (US)	352,502	448,552	686,310	869,878	939,086	976,126	1,053,956	1,000,068	997,249	994,046	1,058,949	952,085	1,025,590
State Street Global Advisors Ireland Limited	8,800	15,406	23,865	30,119	28,971	29,614	29,368	28,303	26,621	27,797	28,237	5,036	5,036
State Teachers Retirement System of Ohio	-	-	1,300	8,300	8,300	3,200	7,100	7,500	8,100	8,100	8,100	12,700	10,800
Steward Partners Investment Advisory, LLC	-	-	705	200	558	233	75	75	75	75	75	75	75
Steward Wealth Management, LLC	-	-	-	-	-	120	120	120	-	120	-	-	-
Stifel, Nicolaus & Company, Incorporated	-	-	54,878	59,178	54,667	88,645	90,047	87,175	-	-	-	-	-
Stratos Wealth Partners, Ltd.	24,433	-	-	-	-	-	-	-	-	-	-	-	-
Strive Asset Management LLC	-	-	-	-	-	-	-	-	-	40	-	-	-
SunAmerica Asset Management, LLC	13,858	19,004	19,054	21,439	20,941	20,333	18,996	17,852	18,108	18,042	18,408	19,143	19,848
Susquehanna Fundamental Investments, LLC	14,500	17,044	-	-	-	-	-	-	-	-	-	-	-
Susquehanna International Group, LLP	120,334	355,685	367,827	351,486	375,221	259,738	232,911	56,066	27,993	79,880	241,690	181,279	22,358
Sutton Wealth Advisors, Inc.	-	-	-	-	-	-	-	-	-	-	-	-	33
T. Rowe Price Associates, Inc.	65	13,497	35,706	21,909	21,262	22,901	28,245	26,852	-	-	9,311	8,553	8,730
T. Rowe Price International Ltd	-	-	-	-	-	-	-	-	27,781	25,401	26,967	26,719	27,589
TCI Wealth Advisors, Inc.	-	-	37	59	68	81	-	106	-	86	-	-	-
TD Waterhouse Canada, Inc.	-	-	-	-	-	400	400	400	400	400	400	400	400
Teacher Retirement System of Texas	-	-	-	4,735	5,686	7,380	7,847	-	5,420	-	12,214	10,760	11,269
Team Financial Strategies	-	-	1,366	1,366	1,366	1,366	1,366	1,366	-	-	-	-	-
Teton Advisors, Inc.	2,000	-	-	-	-	-	-	-	-	-	-	-	-
Tevis Investment Management, LLC	-	-	-	-	-	30	55	87	-	-	-	-	-
Texas Capital Bank Private Wealth Advisors	-	-	-	-	-	-	-	-	-	-	-	-	470
The Capital Advisory Group Advisory Services, LLC	-	-	-	-	125	-	-	-	-	-	-	-	-
The High Net Worth Advisory Group, LLC	-	-	-	-	-	-	-	-	200	-	-	-	-
The MassMutual Trust Company, FSB	-	-	-	-	-	-	13	-	10	10	-	-	-
The Retirement Group, LLC	-	-	-	-	1,050	1,215	1,275	25	760	-	-	-	-
The Vanguard Group, Inc.	1,273,401	1,583,863	1,774,178	1,816,875	1,964,201	2,054,811	1,968,721	2,040,728	2,102,879	2,189,941	2,229,921	2,242,675	2,261,582
Think Investments LP	-	-	-	-	-	201,300	151,300	111,661	111,661	-	-	-	-
Tower Research Capital LLC	22,513	3,407	2,515	7,364	1,817	1,951	2,376	9,907	1,354	1,541	5,433	2,975	1,895
Townsquare Capital, LLC	-	-	-	-	8,700	-	-	-	-	-	-	-	-
Tradewinds Capital Management, LLC	-	-	-	-	-	225	225	-	-	-	-	-	225
Trexquant Investment LP	-	-	11,926	-	-	-	-	-	-	-	-	-	-
Tru Independence LLC	-	-	-	940	-	-	-	-	-	-	-	-	-
Tudor Investment Corporation	-	-	-	8,910	-	-	-	-	-	-	-	-	-
TwinBeech Capital LP	-	-	-	-	-	-	-	-	-	17,960	78,011	20,588	-
U.S. Bancorp Asset Management, Inc.	-	-	600	1,491	3,416	3,758	4,240	5,039	6,754	8,231	7,453	7,558	2,672

## Exhibit-5

## Institutional Holdings of Cassava Stock During the Class Period

Institution	9/30/2020	12/31/2020	3/31/2021	6/30/2021	9/30/2021	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023	6/30/2023	9/30/2023
UBS Asset Management (Switzerland)	-	-	44,974	16,700	16,700	10,393	16,120	16,400	16,400	18,104	28,930	28,930	28,930
UBS Asset Management (UK) Ltd.	-	-	-	14,776	14,575	15,989	15,989	16,126	12,348	13,634	17,350	17,350	17,350
UBS Financial Services, Inc.	441	7,320	4,639	4,077	6,911	7,736	6,285	4,962	30,647	41,648	58,204	63,798	27,666
USAA Asset Management Company	-	-	-	5,117	7,323	6,659	8,980	4,439	-	-	-	-	-
Valeo Financial Advisors LLC	-	-	-	-	-	6,900	5,900	-	4,902	-	-	-	-
Vanguard Global Advisers LLC	-	-	-	-	390	390	570	798	809	830	870	902	879
Vanguard Investments Australia Ltd.	-	-	-	9,328	10,081	6,008	6,008	6,984	6,984	6,984	6,984	6,984	6,984
Vaughan Nelson Investment Management, L.P.	5,770	8,475	7,410	-	-	-	-	-	-	-	-	-	-
Vectors Research Management, LLC	-	-	75	75	75	75	75	75	-	-	-	-	-
Venturi Private Wealth	-	-	-	-	-	-	-	-	-	-	500	500	500
Verition Fund Management LLC	-	-	-	-	-	4,867	-	-	-	-	-	-	25,100
Victory Capital Management Inc.	-	-	5,833	11,044	13,026	12,190	14,128	9,733	-	-	-	-	-
Virtu Americas LLC	-	-	35,671	8,667	-	-	-	-	13,108	10,044	-	-	22,304
Virtus Etf Advisers LLC	-	-	-	2,951	2,798	3,499	3,299	4,241	4,267	3,175	2,288	4,293	3,907
Voloridge Investment Management, LLC	-	-	-	-	222,272	-	-	-	-	-	-	-	-
Voya Investment Management LLC	-	13,430	14,230	15,084	14,799	14,827	15,074	14,477	14,858	14,858	14,667	15,785	16,030
Walleye Capital LLC	-	-	-	-	-	-	-	-	-	-	-	5,541	-
Walleye Trading, LLC	-	-	348	-	-	-	-	-	-	-	-	27,009	-
Wealthcare Advisory Partners LLC	-	-	10	-	-	-	-	-	-	-	-	-	-
Wealthcare Capital Management, LLC	-	-	31	-	-	-	-	-	-	-	-	-	-
Wellington Management Company, LLP	-	-	4,437	-	-	-	-	-	-	-	-	-	-
Wells Fargo Advisors	1,673	2,568	5,152	1,993	25,189	17,970	1,159	1,043	2,725	2,850	3,005	3,375	4,275
Wells Fargo Bank, N.A.	32,166	43,756	10,893	6,071	288	22,009	8,626	1,069	693	-	7,384	16,602	7,962
Wells Fargo Investment Institute, Inc.	-	-	-	-	-	321	289	179	160	374	203	203	304
Wetherby Asset Management LLC	-	-	-	3,000	-	-	-	-	-	-	-	-	-
Winton Capital Management Ltd.	44,089	-	-	-	-	-	-	-	-	-	-	-	-
Wipfli Financial Advisors, LLC	-	-	-	-	-	-	-	-	60	60	60	60	60
Wolverine Trading, LLC	-	-	14,069	17,389	32,621	21,906	-	-	-	-	9,860	17,987	-
Wyss & Partner, Vermögensverwaltung und Anlageberatung AG	-	-	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-
Zürcher Kantonalbank (Asset Management)	-	-	-	4,034	4,034	5,045	5,045	5,045	5,045	3,820	5,641	5,641	5,641

Source: Refinitiv Eikon.

**Exhibit-6****Cassava Stock Short Interest**

15 September 2020 through 13 October 2023

<b>Date</b>	<b>Short Interest</b>	<b>Shares Outstanding</b>	<b>Short Interest as Percent of Shares Outstanding<sup>[1]</sup></b>
9/15/2020	2,784,712	24,919,333	11.17%
9/30/2020	4,979,708	25,578,673	19.47%
10/15/2020	4,643,493	25,578,673	18.15%
10/30/2020	5,356,890	25,578,673	20.94%
11/13/2020	5,988,193	25,578,673	23.41%
11/30/2020	5,973,259	25,578,673	23.35%
12/15/2020	5,203,134	25,578,673	20.34%
12/31/2020	5,347,640	35,237,987	15.18%
1/15/2021	5,457,797	35,237,987	15.49%
1/29/2021	5,981,141	35,237,987	16.97%
2/12/2021	2,619,367	35,237,987	7.43%
2/26/2021	2,939,038	35,237,987	8.34%
3/15/2021	3,649,373	35,237,987	10.36%
3/31/2021	3,437,179	40,008,654	8.59%
4/15/2021	3,631,885	40,008,654	9.08%
4/30/2021	3,755,560	40,008,654	9.39%
5/14/2021	3,467,907	40,008,654	8.67%
5/28/2021	3,778,950	40,008,654	9.45%
6/15/2021	3,758,841	40,008,654	9.40%
6/30/2021	3,956,634	40,011,894	9.89%
7/15/2021	4,421,598	40,011,894	11.05%
7/30/2021	3,998,199	40,011,894	9.99%
8/13/2021	5,402,461	40,014,695	13.50%
8/31/2021	7,899,035	40,014,695	19.74%
9/15/2021	8,880,504	40,014,695	22.19%
9/30/2021	8,771,177	40,016,792	21.92%
10/15/2021	9,419,326	40,016,792	23.54%
10/29/2021	11,348,933	40,016,792	28.36%
11/15/2021	8,384,143	40,016,792	20.95%
11/30/2021	10,246,223	40,016,792	25.60%
12/15/2021	12,185,605	40,016,792	30.45%
12/31/2021	13,612,155	40,016,792	34.02%
1/14/2022	12,987,799	40,016,792	32.46%
1/31/2022	13,603,098	40,016,792	33.99%
2/15/2022	11,947,022	40,016,792	29.86%
2/28/2022	11,301,696	40,016,792	28.24%
3/15/2022	10,927,568	40,016,792	27.31%
3/31/2022	10,674,350	40,031,280	26.67%
4/14/2022	11,460,377	40,031,280	28.63%
4/29/2022	11,752,285	40,031,280	29.36%



**Exhibit-6****Cassava Stock Short Interest**

15 September 2020 through 13 October 2023

<b>Date</b>	<b>Short Interest</b>	<b>Shares Outstanding</b>	<b>Short Interest as Percent of Shares Outstanding<sup>[1]</sup></b>
5/13/2022	11,846,442	40,080,740	29.56%
5/31/2022	11,529,999	40,080,740	28.77%
6/15/2022	10,969,150	40,080,740	27.37%
6/30/2022	10,409,439	40,097,917	25.96%
7/15/2022	10,179,430	40,097,917	25.39%
7/29/2022	11,429,729	40,097,917	28.50%
8/15/2022	12,051,970	40,097,917	30.06%
8/31/2022	12,583,958	40,097,917	31.38%
9/15/2022	12,553,546	40,097,917	31.31%
9/30/2022	10,775,219	40,059,514	26.90%
10/14/2022	9,634,001	40,059,514	24.05%
10/31/2022	9,373,113	40,059,514	23.40%
11/15/2022	9,327,942	40,068,890	23.28%
11/30/2022	9,330,377	40,068,890	23.29%
12/15/2022	8,798,681	40,068,890	21.96%
12/30/2022	8,693,277	40,068,890	21.70%
1/13/2023	10,323,596	41,735,557	24.74%
1/31/2023	9,854,879	41,735,557	23.61%
2/15/2023	10,601,625	41,735,557	25.40%
2/28/2023	11,009,584	41,735,557	26.38%
3/15/2023	10,456,726	41,735,557	25.05%
3/31/2023	11,500,599	41,749,435	27.55%
4/14/2023	11,050,787	41,749,435	26.47%
4/28/2023	10,984,305	41,749,435	26.31%
5/15/2023	10,162,456	41,749,435	24.34%
5/31/2023	10,804,646	41,749,435	25.88%
6/15/2023	9,383,588	41,749,435	22.48%
6/30/2023	10,144,547	41,919,527	24.20%
7/14/2023	11,200,394	41,919,527	26.72%
7/31/2023	11,425,583	41,919,527	27.26%
8/15/2023	12,260,196	41,969,994	29.21%
8/31/2023	13,344,652	41,969,994	31.80%
9/15/2023	13,703,984	41,969,994	32.65%
9/29/2023	14,212,684	41,969,994	33.86%
10/13/2023	14,018,347	42,129,798	33.27%

**Sources:** Bloomberg (Short Interest), Company SEC Filings (Shares Outstanding).**Note:** [1] Computations performed by Crowninshield Financial Research, Inc.

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
9/13/2019	-0.04%	0.16%
9/16/2019	-0.13%	0.79%
9/17/2019	0.22%	0.07%
9/18/2019	-0.07%	-0.83%
9/19/2019	-0.01%	0.31%
9/20/2019	-0.41%	0.79%
9/23/2019	-0.01%	-0.89%
9/24/2019	-0.92%	-2.13%
9/25/2019	0.56%	-0.24%
9/26/2019	-0.31%	-1.99%
9/27/2019	-0.57%	-0.82%
9/30/2019	0.44%	0.33%
10/1/2019	-1.26%	-1.65%
10/2/2019	-1.63%	-0.77%
10/3/2019	0.76%	1.69%
10/4/2019	1.26%	0.80%
10/7/2019	-0.39%	-0.14%
10/8/2019	-1.52%	-2.01%
10/9/2019	0.83%	0.24%
10/10/2019	0.56%	1.33%
10/11/2019	1.13%	1.24%
10/14/2019	-0.16%	0.37%
10/15/2019	0.91%	1.82%
10/16/2019	-0.19%	-0.18%
10/17/2019	0.37%	0.75%
10/18/2019	-0.37%	-0.77%
10/21/2019	0.66%	1.53%
10/22/2019	-0.33%	1.41%
10/23/2019	0.24%	0.26%
10/24/2019	0.23%	0.05%
10/25/2019	0.41%	-0.15%
10/28/2019	0.52%	1.40%
10/29/2019	-0.06%	0.48%
10/30/2019	0.28%	0.07%
10/31/2019	-0.35%	-0.31%
11/1/2019	1.02%	2.32%
11/4/2019	0.38%	-0.31%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
11/5/2019	-0.11%	0.00%
11/6/2019	-0.03%	-1.08%
11/7/2019	0.28%	0.02%
11/8/2019	0.26%	1.99%
11/11/2019	-0.16%	-0.42%
11/12/2019	0.11%	0.41%
11/13/2019	0.03%	0.09%
11/14/2019	0.10%	-0.56%
11/15/2019	0.70%	1.47%
11/18/2019	0.01%	-0.19%
11/19/2019	0.00%	1.83%
11/20/2019	-0.30%	0.57%
11/21/2019	-0.17%	0.26%
11/22/2019	0.20%	0.85%
11/25/2019	0.85%	2.52%
11/26/2019	0.22%	0.15%
11/27/2019	0.43%	0.75%
11/29/2019	-0.41%	0.22%
12/2/2019	-0.86%	-1.01%
12/3/2019	-0.57%	0.75%
12/4/2019	0.60%	0.95%
12/5/2019	0.11%	-1.41%
12/6/2019	0.84%	1.10%
12/9/2019	-0.27%	-0.56%
12/10/2019	-0.07%	0.72%
12/11/2019	0.27%	-0.65%
12/12/2019	0.78%	0.80%
12/13/2019	0.00%	0.04%
12/16/2019	0.70%	0.97%
12/17/2019	0.05%	-0.45%
12/18/2019	0.02%	-0.42%
12/19/2019	0.42%	0.51%
12/20/2019	0.45%	0.73%
12/23/2019	0.10%	0.71%
12/24/2019	0.04%	0.53%
12/26/2019	0.46%	-0.71%
12/27/2019	-0.06%	-0.94%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
12/30/2019	-0.51%	-1.12%
12/31/2019	0.30%	0.36%
1/2/2020	0.74%	-0.62%
1/3/2020	-0.58%	-1.28%
1/6/2020	0.33%	0.75%
1/7/2020	-0.21%	0.05%
1/8/2020	0.40%	0.89%
1/9/2020	0.58%	0.55%
1/10/2020	-0.26%	-0.36%
1/13/2020	0.71%	-1.19%
1/14/2020	-0.04%	1.76%
1/15/2020	0.19%	0.45%
1/16/2020	0.84%	0.41%
1/17/2020	0.25%	-0.35%
1/21/2020	-0.30%	-0.99%
1/22/2020	0.04%	-0.15%
1/23/2020	0.10%	-0.74%
1/24/2020	-0.89%	-2.34%
1/27/2020	-1.50%	-0.66%
1/28/2020	0.96%	1.20%
1/29/2020	-0.12%	-0.11%
1/30/2020	0.28%	-1.47%
1/31/2020	-1.68%	-1.58%
2/3/2020	0.75%	1.84%
2/4/2020	1.47%	2.34%
2/5/2020	0.93%	2.50%
2/6/2020	0.26%	0.64%
2/7/2020	-0.55%	-0.77%
2/10/2020	0.67%	1.04%
2/11/2020	0.34%	-0.08%
2/12/2020	0.64%	0.20%
2/13/2020	-0.08%	-0.74%
2/14/2020	0.17%	0.33%
2/18/2020	-0.19%	0.18%
2/19/2020	0.52%	0.77%
2/20/2020	-0.26%	-0.30%
2/21/2020	-0.98%	-0.08%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
2/24/2020	-3.23%	-2.70%
2/25/2020	-2.99%	-2.36%
2/26/2020	-0.54%	1.22%
2/27/2020	-4.19%	-4.21%
2/28/2020	-0.86%	0.54%
3/2/2020	3.95%	4.47%
3/3/2020	-2.49%	-2.52%
3/4/2020	3.69%	4.46%
3/5/2020	-3.20%	-1.72%
3/6/2020	-1.79%	-1.24%
3/9/2020	-8.26%	-7.09%
3/10/2020	4.34%	2.11%
3/11/2020	-5.12%	-5.02%
3/12/2020	-10.19%	-9.11%
3/13/2020	8.20%	6.82%
3/16/2020	-12.58%	-10.16%
3/17/2020	5.17%	6.72%
3/18/2020	-6.15%	-2.42%
3/19/2020	1.42%	2.62%
3/20/2020	-3.79%	-2.86%
3/23/2020	-2.72%	-0.91%
3/24/2020	8.76%	5.61%
3/25/2020	1.62%	-1.00%
3/26/2020	5.59%	5.09%
3/27/2020	-3.36%	-2.41%
3/30/2020	2.86%	4.06%
3/31/2020	-1.24%	-0.94%
4/1/2020	-4.61%	-4.06%
4/2/2020	1.93%	3.77%
4/3/2020	-1.59%	-1.20%
4/6/2020	6.57%	4.98%
4/7/2020	0.05%	-1.91%
4/8/2020	3.33%	2.88%
4/9/2020	1.81%	0.88%
4/13/2020	-1.02%	0.51%
4/14/2020	2.78%	3.48%
4/15/2020	-2.33%	-2.36%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
4/16/2020	0.42%	2.96%
4/17/2020	2.73%	4.38%
4/20/2020	-1.57%	1.45%
4/21/2020	-2.96%	-3.23%
4/22/2020	2.16%	0.85%
4/23/2020	0.12%	-0.08%
4/24/2020	1.30%	2.21%
4/27/2020	1.74%	1.11%
4/28/2020	-0.23%	-2.21%
4/29/2020	2.85%	0.80%
4/30/2020	-1.32%	-1.24%
5/1/2020	-2.84%	-2.56%
5/4/2020	0.48%	2.80%
5/5/2020	0.87%	1.94%
5/6/2020	-0.59%	0.10%
5/7/2020	1.32%	0.24%
5/8/2020	1.84%	0.84%
5/11/2020	-0.04%	4.09%
5/12/2020	-2.06%	-1.95%
5/13/2020	-1.92%	-1.23%
5/14/2020	1.02%	-0.40%
5/15/2020	0.52%	2.36%
5/18/2020	3.28%	1.21%
5/19/2020	-0.98%	-2.00%
5/20/2020	1.72%	2.08%
5/21/2020	-0.67%	-1.12%
5/22/2020	0.27%	0.83%
5/26/2020	1.41%	-1.94%
5/27/2020	1.49%	0.78%
5/28/2020	-0.35%	0.24%
5/29/2020	0.47%	1.86%
6/1/2020	0.66%	-0.52%
6/2/2020	0.84%	0.28%
6/3/2020	1.48%	-1.24%
6/4/2020	-0.30%	-1.02%
6/5/2020	2.47%	0.07%
6/8/2020	1.41%	1.23%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
6/9/2020	-0.96%	-0.23%
6/10/2020	-0.67%	0.36%
6/11/2020	-6.00%	-4.62%
6/12/2020	1.40%	0.71%
6/15/2020	1.06%	1.82%
6/16/2020	1.75%	1.50%
6/17/2020	-0.41%	0.41%
6/18/2020	0.12%	0.45%
6/19/2020	-0.46%	3.29%
6/22/2020	0.67%	0.09%
6/23/2020	0.39%	0.48%
6/24/2020	-2.61%	-1.93%
6/25/2020	1.12%	1.41%
6/26/2020	-2.31%	-2.17%
6/29/2020	1.44%	-0.37%
6/30/2020	1.46%	1.65%
7/1/2020	0.40%	0.47%
7/2/2020	0.50%	0.75%
7/6/2020	1.48%	0.64%
7/7/2020	-1.03%	0.56%
7/8/2020	0.84%	0.48%
7/9/2020	-0.57%	-0.24%
7/10/2020	1.03%	-0.90%
7/13/2020	-1.13%	-1.45%
7/14/2020	1.32%	2.27%
7/15/2020	1.17%	1.57%
7/16/2020	-0.40%	-0.86%
7/17/2020	0.36%	1.88%
7/20/2020	0.85%	1.19%
7/21/2020	0.23%	-2.35%
7/22/2020	0.51%	-0.25%
7/23/2020	-1.10%	-1.90%
7/24/2020	-0.70%	-2.15%
7/27/2020	0.90%	2.68%
7/28/2020	-0.70%	-1.49%
7/29/2020	1.33%	-0.96%
7/30/2020	-0.38%	0.29%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
7/31/2020	0.45%	-1.94%
8/3/2020	0.87%	3.10%
8/4/2020	0.45%	-0.78%
8/5/2020	0.75%	-0.15%
8/6/2020	0.46%	-0.47%
8/7/2020	0.02%	-0.36%
8/10/2020	0.26%	-1.09%
8/11/2020	-0.80%	-2.23%
8/12/2020	1.29%	1.48%
8/13/2020	-0.06%	0.26%
8/14/2020	-0.07%	-0.60%
8/17/2020	0.50%	2.04%
8/18/2020	0.14%	-0.58%
8/19/2020	-0.44%	-1.17%
8/20/2020	0.28%	-0.27%
8/21/2020	0.16%	-0.59%
8/24/2020	0.89%	-1.18%
8/25/2020	0.34%	1.63%
8/26/2020	0.87%	-0.26%
8/27/2020	0.17%	-0.03%
8/28/2020	0.69%	0.20%
8/31/2020	-0.16%	2.01%
9/1/2020	0.85%	-1.91%
9/2/2020	1.20%	1.47%
9/3/2020	-3.46%	-3.76%
9/4/2020	-0.81%	-0.59%
9/8/2020	-2.72%	-1.87%
9/9/2020	1.96%	1.88%
9/10/2020	-1.57%	-1.80%
9/11/2020	-0.02%	0.63%
9/14/2020	1.53%	5.23%
9/15/2020	0.54%	1.10%
9/16/2020	-0.32%	0.04%
9/17/2020	-0.79%	-0.39%
9/18/2020	-0.89%	0.40%
9/21/2020	-1.26%	-2.50%
9/22/2020	0.93%	0.83%



**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
9/23/2020	-2.43%	-1.39%
9/24/2020	0.20%	-0.99%
9/25/2020	1.56%	2.16%
9/28/2020	1.64%	0.69%
9/29/2020	-0.40%	0.16%
9/30/2020	0.69%	0.55%
10/1/2020	0.78%	0.94%
10/2/2020	-0.78%	-2.21%
10/5/2020	1.81%	4.30%
10/6/2020	-1.20%	-1.18%
10/7/2020	1.69%	2.18%
10/8/2020	0.85%	0.26%
10/9/2020	0.85%	0.79%
10/12/2020	1.34%	0.73%
10/13/2020	-0.50%	0.49%
10/14/2020	-0.60%	-1.28%
10/15/2020	-0.08%	-2.35%
10/16/2020	-0.07%	0.49%
10/19/2020	-1.43%	-1.82%
10/20/2020	0.38%	-0.59%
10/21/2020	-0.34%	-1.61%
10/22/2020	0.61%	1.33%
10/23/2020	0.38%	0.26%
10/26/2020	-1.83%	-0.92%
10/27/2020	-0.30%	0.52%
10/28/2020	-3.34%	-2.57%
10/29/2020	1.04%	0.62%
10/30/2020	-1.32%	-2.16%
11/2/2020	1.20%	0.10%
11/3/2020	1.86%	1.67%
11/4/2020	1.94%	6.02%
11/5/2020	2.09%	-0.11%
11/6/2020	0.00%	-1.57%
11/9/2020	1.06%	-0.73%
11/10/2020	-0.06%	0.19%
11/11/2020	0.80%	1.18%
11/12/2020	-0.97%	-0.01%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
11/13/2020	1.32%	1.25%
11/16/2020	1.23%	0.00%
11/17/2020	-0.15%	-0.44%
11/18/2020	-0.91%	-1.96%
11/19/2020	0.58%	0.14%
11/20/2020	-0.43%	0.62%
11/23/2020	0.79%	0.24%
11/24/2020	1.50%	-0.66%
11/25/2020	0.02%	0.54%
11/27/2020	0.40%	3.06%
11/30/2020	-0.58%	1.09%
12/1/2020	0.96%	0.37%
12/2/2020	0.12%	-0.28%
12/3/2020	0.23%	0.89%
12/4/2020	1.04%	1.00%
12/7/2020	-0.02%	-0.04%
12/8/2020	0.43%	1.70%
12/9/2020	-0.96%	-1.78%
12/10/2020	0.26%	1.47%
12/11/2020	-0.23%	0.21%
12/14/2020	-0.33%	2.38%
12/15/2020	1.30%	0.08%
12/16/2020	0.14%	-0.63%
12/17/2020	0.79%	1.38%
12/18/2020	-0.21%	0.40%
12/21/2020	-0.29%	0.47%
12/22/2020	0.06%	0.27%
12/23/2020	0.14%	0.30%
12/24/2020	0.23%	-0.78%
12/28/2020	0.38%	-1.55%
12/29/2020	-0.37%	-1.19%
12/30/2020	0.33%	0.46%
12/31/2020	0.36%	-0.67%
1/4/2021	-1.32%	-0.59%
1/5/2021	0.90%	0.15%
1/6/2021	0.80%	1.30%
1/7/2021	1.61%	2.88%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
1/8/2021	0.47%	0.61%
1/11/2021	-0.57%	-0.14%
1/12/2021	0.42%	0.24%
1/13/2021	0.09%	-0.22%
1/14/2021	0.00%	2.41%
1/15/2021	-0.86%	-0.08%
1/19/2021	0.85%	1.89%
1/20/2021	1.20%	0.25%
1/21/2021	-0.09%	-1.05%
1/22/2021	-0.15%	0.91%
1/25/2021	0.24%	1.71%
1/26/2021	-0.29%	-1.81%
1/27/2021	-2.51%	-3.04%
1/28/2021	0.92%	0.35%
1/29/2021	-1.78%	0.31%
2/1/2021	1.71%	1.16%
2/2/2021	1.39%	1.06%
2/3/2021	0.14%	-0.33%
2/4/2021	1.12%	1.44%
2/5/2021	0.61%	1.66%
2/8/2021	0.97%	2.09%
2/9/2021	0.10%	-0.62%
2/10/2021	-0.03%	-0.85%
2/11/2021	0.19%	-0.19%
2/12/2021	0.47%	0.49%
2/16/2021	-0.11%	-2.18%
2/17/2021	-0.23%	0.42%
2/18/2021	-0.66%	-1.86%
2/19/2021	0.27%	1.04%
2/22/2021	-0.97%	-2.44%
2/23/2021	-0.13%	-1.44%
2/24/2021	1.12%	0.87%
2/25/2021	-2.70%	-2.59%
2/26/2021	-0.39%	-0.02%
3/1/2021	2.45%	1.61%
3/2/2021	-0.91%	-2.01%
3/3/2021	-1.48%	-3.68%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
3/4/2021	-1.68%	-2.46%
3/5/2021	1.72%	1.97%
3/8/2021	-0.59%	-1.98%
3/9/2021	1.67%	2.92%
3/10/2021	0.68%	0.07%
3/11/2021	1.41%	2.76%
3/12/2021	0.15%	-0.61%
3/15/2021	0.70%	1.49%
3/16/2021	-0.43%	0.00%
3/17/2021	0.36%	0.63%
3/18/2021	-1.81%	-3.26%
3/19/2021	0.18%	1.73%
3/22/2021	0.48%	1.34%
3/23/2021	-1.21%	-4.02%
3/24/2021	-0.91%	-2.96%
3/25/2021	0.65%	1.11%
3/26/2021	1.52%	0.27%
3/29/2021	-0.53%	-1.39%
3/30/2021	0.00%	-0.36%
3/31/2021	0.56%	2.51%
4/1/2021	1.27%	0.83%
4/5/2021	1.14%	0.45%
4/6/2021	0.03%	-0.58%
4/7/2021	-0.15%	-1.78%
4/8/2021	0.59%	0.32%
4/9/2021	0.55%	-0.38%
4/12/2021	-0.07%	-1.44%
4/13/2021	0.40%	1.75%
4/14/2021	-0.29%	1.51%
4/15/2021	1.00%	1.26%
4/16/2021	0.26%	0.05%
4/19/2021	-0.70%	-1.09%
4/20/2021	-0.91%	0.02%
4/21/2021	1.12%	2.00%
4/22/2021	-0.73%	-0.16%
4/23/2021	1.20%	0.46%
4/26/2021	0.44%	2.02%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
4/27/2021	-0.02%	-0.43%
4/28/2021	0.01%	-0.72%
4/29/2021	0.35%	-1.12%
4/30/2021	-0.80%	-0.03%
5/3/2021	0.20%	-0.03%
5/4/2021	-0.85%	-3.10%
5/5/2021	-0.01%	-0.80%
5/6/2021	0.48%	-0.36%
5/7/2021	0.86%	0.90%
5/10/2021	-1.24%	-1.85%
5/11/2021	-0.66%	0.53%
5/12/2021	-2.28%	-0.93%
5/13/2021	0.97%	0.01%
5/14/2021	1.74%	2.21%
5/17/2021	-0.14%	0.39%
5/18/2021	-0.60%	0.27%
5/19/2021	-0.38%	-1.04%
5/20/2021	1.11%	2.26%
5/21/2021	-0.03%	-0.69%
5/24/2021	0.93%	-0.57%
5/25/2021	-0.27%	-0.62%
5/26/2021	0.45%	0.62%
5/27/2021	0.29%	0.42%
5/28/2021	0.10%	0.43%
6/1/2021	0.17%	-0.67%
6/2/2021	0.17%	0.32%
6/3/2021	-0.52%	-0.11%
6/4/2021	0.84%	1.23%
6/7/2021	0.16%	3.56%
6/8/2021	0.18%	-0.09%
6/9/2021	-0.29%	1.40%
6/10/2021	0.40%	1.74%
6/11/2021	0.31%	-0.74%
6/14/2021	0.13%	-0.08%
6/15/2021	-0.30%	-1.63%
6/16/2021	-0.47%	-0.76%
6/17/2021	-0.14%	0.67%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
6/18/2021	-1.26%	-0.31%
6/21/2021	1.35%	0.82%
6/22/2021	0.49%	0.20%
6/23/2021	-0.01%	-0.35%
6/24/2021	0.65%	1.26%
6/25/2021	0.32%	0.79%
6/28/2021	0.11%	0.19%
6/29/2021	0.00%	-0.02%
6/30/2021	0.04%	0.35%
7/1/2021	0.42%	1.16%
7/2/2021	0.50%	-0.45%
7/6/2021	-0.30%	-1.50%
7/7/2021	0.11%	-1.32%
7/8/2021	-0.90%	0.49%
7/9/2021	1.28%	0.84%
7/12/2021	0.22%	-0.44%
7/13/2021	-0.60%	-1.09%
7/14/2021	-0.24%	-1.26%
7/15/2021	-0.39%	-0.01%
7/16/2021	-0.76%	1.07%
7/19/2021	-1.47%	0.77%
7/20/2021	1.68%	1.32%
7/21/2021	0.96%	0.60%
7/22/2021	0.03%	-0.13%
7/23/2021	0.89%	0.79%
7/26/2021	0.16%	-2.03%
7/27/2021	-0.60%	-0.93%
7/28/2021	0.30%	2.92%
7/29/2021	0.45%	-0.84%
7/30/2021	-0.56%	-0.14%
8/2/2021	-0.14%	-0.01%
8/3/2021	0.68%	2.17%
8/4/2021	-0.40%	1.37%
8/5/2021	0.71%	1.82%
8/6/2021	0.08%	-1.51%
8/9/2021	-0.04%	2.56%
8/10/2021	0.07%	-1.64%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
8/11/2021	0.24%	-3.04%
8/12/2021	0.20%	0.85%
8/13/2021	0.03%	-0.06%
8/16/2021	-0.08%	-1.38%
8/17/2021	-0.79%	1.99%
8/18/2021	-0.89%	-1.37%
8/19/2021	-0.23%	-2.57%
8/20/2021	0.86%	1.64%
8/23/2021	1.05%	3.09%
8/24/2021	0.42%	-0.34%
8/25/2021	0.26%	0.47%
8/26/2021	-0.65%	-0.65%
8/27/2021	1.09%	0.33%
8/30/2021	0.30%	-0.23%
8/31/2021	-0.11%	0.62%
9/1/2021	0.20%	1.02%
9/2/2021	0.41%	1.06%
9/3/2021	-0.01%	-0.19%
9/7/2021	-0.42%	-0.27%
9/8/2021	-0.35%	-1.06%
9/9/2021	-0.29%	0.31%
9/10/2021	-0.73%	-0.52%
9/13/2021	0.20%	-1.22%
9/14/2021	-0.62%	-0.27%
9/15/2021	0.85%	0.95%
9/16/2021	-0.09%	0.50%
9/17/2021	-0.74%	0.59%
9/20/2021	-1.84%	-2.22%
9/21/2021	0.09%	1.00%
9/22/2021	0.99%	-0.13%
9/23/2021	1.20%	1.40%
9/24/2021	-0.01%	-1.89%
9/27/2021	-0.10%	-0.78%
9/28/2021	-2.10%	-3.01%
9/29/2021	-0.01%	-0.43%
9/30/2021	-0.95%	0.20%
10/1/2021	1.06%	-1.76%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
10/4/2021	-1.30%	-2.00%
10/5/2021	0.95%	0.16%
10/6/2021	0.28%	-1.17%
10/7/2021	0.99%	1.25%
10/8/2021	-0.25%	-0.53%
10/11/2021	-0.64%	-0.03%
10/12/2021	0.02%	0.10%
10/13/2021	0.48%	0.42%
10/14/2021	1.58%	1.31%
10/15/2021	0.57%	-0.68%
10/18/2021	0.33%	-1.29%
10/19/2021	0.68%	1.11%
10/20/2021	0.39%	-0.07%
10/21/2021	0.29%	0.72%
10/22/2021	-0.17%	-0.45%
10/25/2021	0.55%	1.10%
10/26/2021	-0.01%	-0.02%
10/27/2021	-0.76%	-1.65%
10/28/2021	1.12%	1.90%
10/29/2021	0.10%	-0.34%
11/1/2021	0.57%	1.59%
11/2/2021	0.20%	0.78%
11/3/2021	0.73%	1.71%
11/4/2021	0.29%	-1.78%
11/5/2021	0.40%	-2.69%
11/8/2021	0.20%	0.07%
11/9/2021	-0.29%	-1.08%
11/10/2021	-1.05%	-1.33%
11/11/2021	0.24%	-0.21%
11/12/2021	0.71%	0.12%
11/15/2021	-0.03%	-0.45%
11/16/2021	0.40%	0.08%
11/17/2021	-0.45%	-0.09%
11/18/2021	0.03%	-0.34%
11/19/2021	-0.29%	0.52%
11/22/2021	-0.62%	-0.68%
11/23/2021	-0.03%	-0.37%



**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
11/24/2021	0.32%	0.22%
11/26/2021	-2.26%	0.41%
11/29/2021	1.00%	0.46%
11/30/2021	-1.93%	-0.89%
12/1/2021	-1.52%	-2.26%
12/2/2021	1.53%	0.42%
12/3/2021	-1.14%	-2.35%
12/6/2021	1.17%	-1.56%
12/7/2021	2.13%	3.81%
12/8/2021	0.43%	1.20%
12/9/2021	-1.08%	-2.23%
12/10/2021	0.61%	-1.27%
12/13/2021	-0.99%	1.30%
12/14/2021	-0.77%	-0.16%
12/15/2021	1.49%	2.22%
12/16/2021	-1.01%	-1.06%
12/17/2021	-0.63%	2.58%
12/20/2021	-1.24%	-0.90%
12/21/2021	1.97%	0.66%
12/22/2021	0.95%	-0.37%
12/23/2021	0.68%	0.89%
12/27/2021	1.20%	-1.46%
12/28/2021	-0.24%	-0.74%
12/29/2021	0.06%	0.41%
12/30/2021	-0.10%	0.51%
12/31/2021	-0.24%	-0.87%
1/3/2022	0.61%	0.70%
1/4/2022	-0.24%	-2.49%
1/5/2022	-2.21%	-3.94%
1/6/2022	0.02%	-0.04%
1/7/2022	-0.42%	-0.94%
1/10/2022	-0.19%	1.04%
1/11/2022	1.08%	1.15%
1/12/2022	0.18%	-1.53%
1/13/2022	-1.45%	-2.29%
1/14/2022	0.02%	0.92%
1/18/2022	-1.95%	-3.93%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
1/19/2022	-0.94%	-1.05%
1/20/2022	-1.11%	-1.14%
1/21/2022	-2.01%	-1.59%
1/24/2022	0.42%	0.84%
1/25/2022	-1.25%	-1.42%
1/26/2022	-0.36%	-1.17%
1/27/2022	-0.81%	-1.82%
1/28/2022	2.22%	3.24%
1/31/2022	2.22%	2.82%
2/1/2022	0.85%	1.50%
2/2/2022	0.47%	-1.24%
2/3/2022	-2.36%	-2.18%
2/4/2022	0.72%	0.44%
2/7/2022	-0.18%	1.01%
2/8/2022	0.91%	0.09%
2/9/2022	1.61%	2.49%
2/10/2022	-1.64%	-2.43%
2/11/2022	-1.78%	-0.96%
2/14/2022	-0.41%	-1.81%
2/15/2022	1.75%	2.62%
2/16/2022	0.03%	-0.32%
2/17/2022	-2.15%	-2.74%
2/18/2022	-0.83%	-1.21%
2/22/2022	-1.13%	-0.48%
2/23/2022	-1.82%	-2.09%
2/24/2022	1.60%	2.13%
2/25/2022	2.19%	1.51%
2/28/2022	-0.04%	-0.37%
3/1/2022	-1.51%	-0.56%
3/2/2022	1.76%	0.78%
3/3/2022	-0.81%	-1.66%
3/4/2022	-1.02%	-1.33%
3/7/2022	-2.96%	-1.08%
3/8/2022	-0.44%	0.30%
3/9/2022	2.59%	3.12%
3/10/2022	-0.42%	-0.94%
3/11/2022	-1.38%	-1.77%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
3/14/2022	-1.06%	-1.08%
3/15/2022	1.89%	1.31%
3/16/2022	2.51%	3.62%
3/17/2022	1.38%	2.18%
3/18/2022	1.22%	1.53%
3/21/2022	-0.17%	-1.37%
3/22/2022	1.17%	2.09%
3/23/2022	-1.19%	-2.13%
3/24/2022	1.30%	1.36%
3/25/2022	0.31%	-1.63%
3/28/2022	0.61%	0.49%
3/29/2022	1.46%	2.66%
3/30/2022	-0.77%	-1.30%
3/31/2022	-1.46%	-0.34%
4/1/2022	0.45%	2.28%
4/4/2022	0.83%	1.23%
4/5/2022	-1.49%	-1.67%
4/6/2022	-1.13%	0.26%
4/7/2022	0.25%	0.83%
4/8/2022	-0.32%	-0.29%
4/11/2022	-1.45%	-2.17%
4/12/2022	-0.27%	-0.53%
4/13/2022	1.33%	2.64%
4/14/2022	-1.18%	-1.13%
4/18/2022	-0.21%	-2.90%
4/19/2022	1.62%	0.80%
4/20/2022	-0.09%	0.26%
4/21/2022	-1.70%	-2.36%
4/22/2022	-2.67%	-2.27%
4/25/2022	0.53%	1.41%
4/26/2022	-2.87%	-3.70%
4/27/2022	0.13%	-0.36%
4/28/2022	2.27%	-0.27%
4/29/2022	-3.41%	-2.27%
5/2/2022	0.59%	1.39%
5/3/2022	0.51%	0.47%
5/4/2022	2.76%	1.70%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
5/5/2022	-3.70%	-4.12%
5/6/2022	-0.84%	-3.91%
5/9/2022	-3.61%	-5.05%
5/10/2022	0.13%	2.63%
5/11/2022	-1.73%	-3.68%
5/12/2022	0.15%	2.89%
5/13/2022	2.66%	3.31%
5/16/2022	-0.47%	0.57%
5/17/2022	2.03%	2.97%
5/18/2022	-3.84%	-2.92%
5/19/2022	-0.21%	1.24%
5/20/2022	0.00%	0.80%
5/23/2022	1.63%	0.59%
5/24/2022	-1.07%	-1.59%
5/25/2022	1.11%	0.51%
5/26/2022	1.96%	0.59%
5/27/2022	2.42%	2.72%
5/31/2022	-0.70%	-2.29%
6/1/2022	-0.70%	-1.04%
6/2/2022	2.01%	0.34%
6/3/2022	-1.55%	0.46%
6/6/2022	0.29%	-1.65%
6/7/2022	0.98%	2.70%
6/8/2022	-1.05%	0.40%
6/9/2022	-2.39%	-3.78%
6/10/2022	-2.86%	-3.03%
6/13/2022	-4.15%	-4.09%
6/14/2022	-0.35%	0.26%
6/15/2022	1.49%	2.32%
6/16/2022	-3.48%	-2.23%
6/17/2022	0.40%	3.90%
6/21/2022	2.23%	2.27%
6/22/2022	-0.22%	1.39%
6/23/2022	0.91%	3.86%
6/24/2022	2.94%	1.70%
6/27/2022	-0.21%	-0.22%
6/28/2022	-1.89%	-2.39%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
6/29/2022	-0.27%	0.75%
6/30/2022	-0.90%	-0.79%
7/1/2022	1.09%	2.15%
7/5/2022	0.20%	2.16%
7/6/2022	0.07%	0.24%
7/7/2022	1.68%	2.38%
7/8/2022	-0.08%	0.50%
7/11/2022	-1.33%	-1.95%
7/12/2022	-0.81%	-0.17%
7/13/2022	-0.34%	0.03%
7/14/2022	-0.56%	-1.68%
7/15/2022	1.84%	1.80%
7/18/2022	-0.56%	-2.36%
7/19/2022	2.70%	2.79%
7/20/2022	0.78%	0.03%
7/21/2022	0.93%	0.18%
7/22/2022	-1.05%	-2.28%
7/25/2022	0.20%	0.33%
7/26/2022	-1.19%	0.06%
7/27/2022	2.50%	1.03%
7/28/2022	1.24%	-0.58%
7/29/2022	1.33%	-0.62%
8/1/2022	-0.22%	-1.72%
8/2/2022	-0.53%	0.66%
8/3/2022	1.49%	3.87%
8/4/2022	-0.05%	2.35%
8/5/2022	-0.04%	1.44%
8/8/2022	0.12%	0.92%
8/9/2022	-0.64%	-1.70%
8/10/2022	2.24%	2.17%
8/11/2022	-0.02%	-1.55%
8/12/2022	1.67%	1.18%
8/15/2022	0.28%	1.64%
8/16/2022	0.19%	-1.35%
8/17/2022	-0.92%	-2.10%
8/18/2022	0.27%	-1.20%
8/19/2022	-1.47%	-0.78%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
8/22/2022	-2.05%	-1.57%
8/23/2022	-0.07%	0.05%
8/24/2022	0.39%	1.36%
8/25/2022	1.41%	0.14%
8/26/2022	-3.24%	-3.41%
8/29/2022	-0.65%	-0.65%
8/30/2022	-1.15%	-0.96%
8/31/2022	-0.72%	0.21%
9/1/2022	-0.11%	1.87%
9/2/2022	-0.86%	-1.61%
9/6/2022	-0.49%	-1.71%
9/7/2022	1.81%	2.89%
9/8/2022	0.74%	3.19%
9/9/2022	1.65%	0.93%
9/12/2022	1.07%	0.20%
9/13/2022	-4.14%	-4.23%
9/14/2022	0.40%	0.90%
9/15/2022	-1.03%	0.26%
9/16/2022	-0.96%	-0.98%
9/19/2022	0.69%	-1.00%
9/20/2022	-1.23%	-0.73%
9/21/2022	-1.61%	-2.45%
9/22/2022	-1.15%	-0.52%
9/23/2022	-1.93%	-1.41%
9/26/2022	-1.15%	-1.67%
9/27/2022	-0.07%	1.50%
9/28/2022	2.14%	4.21%
9/29/2022	-2.12%	-1.79%
9/30/2022	-1.24%	-0.23%
10/3/2022	2.51%	1.43%
10/4/2022	3.19%	2.93%
10/5/2022	-0.32%	0.01%
10/6/2022	-0.94%	-0.54%
10/7/2022	-2.78%	-2.67%
10/10/2022	-0.82%	-0.67%
10/11/2022	-0.64%	0.69%
10/12/2022	-0.29%	0.49%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
10/13/2022	2.32%	1.93%
10/14/2022	-2.40%	-1.54%
10/17/2022	2.64%	2.04%
10/18/2022	1.15%	0.06%
10/19/2022	-0.90%	-3.35%
10/20/2022	-0.75%	-0.57%
10/21/2022	2.19%	2.56%
10/24/2022	0.87%	0.86%
10/25/2022	1.81%	1.68%
10/26/2022	-0.46%	1.43%
10/27/2022	-0.41%	-1.45%
10/28/2022	2.11%	4.05%
10/31/2022	-0.60%	-0.86%
11/1/2022	-0.22%	0.87%
11/2/2022	-2.54%	-1.45%
11/3/2022	-0.89%	0.10%
11/4/2022	1.31%	0.16%
11/7/2022	0.81%	0.48%
11/8/2022	0.53%	0.91%
11/9/2022	-2.14%	-1.24%
11/10/2022	5.38%	3.51%
11/11/2022	1.05%	0.17%
11/14/2022	-0.96%	0.27%
11/15/2022	1.01%	0.37%
11/16/2022	-0.98%	-0.92%
11/17/2022	-0.41%	-0.21%
11/18/2022	0.42%	0.53%
11/21/2022	-0.46%	-0.63%
11/22/2022	1.32%	0.88%
11/23/2022	0.59%	-0.41%
11/25/2022	0.04%	0.11%
11/28/2022	-1.58%	-0.67%
11/29/2022	-0.07%	-0.24%
11/30/2022	2.90%	3.19%
12/1/2022	0.02%	0.41%
12/2/2022	-0.06%	1.21%
12/5/2022	-1.96%	-2.15%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
12/6/2022	-1.42%	-1.65%
12/7/2022	-0.19%	0.96%
12/8/2022	0.73%	1.04%
12/9/2022	-0.75%	-2.13%
12/12/2022	1.29%	0.91%
12/13/2022	0.73%	1.49%
12/14/2022	-0.55%	0.66%
12/15/2022	-2.44%	-1.83%
12/16/2022	-1.04%	-0.89%
12/19/2022	-0.97%	-1.91%
12/20/2022	0.19%	1.28%
12/21/2022	1.45%	1.26%
12/22/2022	-1.41%	0.00%
12/23/2022	0.55%	-1.52%
12/27/2022	-0.39%	-2.24%
12/28/2022	-1.24%	-0.30%
12/29/2022	1.82%	2.10%
12/30/2022	-0.25%	0.32%
1/3/2023	-0.39%	-0.93%
1/4/2023	0.95%	1.11%
1/5/2023	-1.10%	0.21%
1/6/2023	2.20%	1.37%
1/9/2023	0.11%	-2.33%
1/10/2023	0.73%	1.84%
1/11/2023	1.25%	0.36%
1/12/2023	0.57%	1.18%
1/13/2023	0.43%	0.76%
1/17/2023	-0.11%	-0.06%
1/18/2023	-1.43%	-0.69%
1/19/2023	-0.75%	-1.03%
1/20/2023	1.79%	0.91%
1/23/2023	1.17%	0.61%
1/24/2023	-0.11%	0.37%
1/25/2023	0.03%	0.05%
1/26/2023	1.03%	0.06%
1/27/2023	0.35%	0.03%
1/30/2023	-1.31%	-1.56%



**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
1/31/2023	1.54%	1.18%
2/1/2023	1.11%	-0.18%
2/2/2023	1.37%	0.00%
2/3/2023	-1.07%	-0.38%
2/6/2023	-0.72%	-0.54%
2/7/2023	1.14%	0.36%
2/8/2023	-1.04%	-2.38%
2/9/2023	-0.89%	-0.35%
2/10/2023	0.15%	0.33%
2/13/2023	1.08%	1.03%
2/14/2023	0.09%	-0.12%
2/15/2023	0.44%	-0.07%
2/16/2023	-1.28%	-1.40%
2/17/2023	-0.29%	1.28%
2/21/2023	-2.07%	-2.50%
2/22/2023	-0.06%	0.12%
2/23/2023	0.49%	-0.55%
2/24/2023	-1.02%	-1.95%
2/27/2023	0.33%	0.44%
2/28/2023	-0.26%	0.22%
3/1/2023	-0.32%	0.58%
3/2/2023	0.65%	-0.18%
3/3/2023	1.54%	1.43%
3/6/2023	-0.18%	-1.06%
3/7/2023	-1.47%	-1.22%
3/8/2023	0.13%	-0.75%
3/9/2023	-1.95%	-1.97%
3/10/2023	-1.66%	-1.45%
3/13/2023	-0.31%	2.70%
3/14/2023	1.57%	1.13%
3/15/2023	-0.93%	-0.44%
3/16/2023	1.62%	0.56%
3/17/2023	-1.21%	-1.67%
3/20/2023	0.87%	1.12%
3/21/2023	1.38%	-0.15%
3/22/2023	-1.66%	-2.10%
3/23/2023	0.18%	1.25%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
3/24/2023	0.47%	1.14%
3/27/2023	0.32%	0.27%
3/28/2023	-0.08%	0.13%
3/29/2023	1.37%	1.24%
3/30/2023	0.55%	-0.64%
3/31/2023	1.45%	1.40%
4/3/2023	0.31%	0.52%
4/4/2023	-0.66%	-0.75%
4/5/2023	-0.41%	0.66%
4/6/2023	0.31%	1.22%
4/10/2023	0.22%	-0.60%
4/11/2023	0.18%	0.15%
4/12/2023	-0.40%	-0.25%
4/13/2023	1.27%	2.13%
4/14/2023	-0.27%	-0.85%
4/17/2023	0.36%	0.95%
4/18/2023	0.07%	-0.50%
4/19/2023	-0.05%	0.53%
4/20/2023	-0.58%	-0.81%
4/21/2023	0.06%	1.16%
4/24/2023	0.04%	-0.52%
4/25/2023	-1.68%	-1.22%
4/26/2023	-0.41%	-1.44%
4/27/2023	1.72%	0.40%
4/28/2023	0.80%	0.73%
5/1/2023	-0.07%	0.95%
5/2/2023	-1.23%	-1.43%
5/3/2023	-0.52%	0.70%
5/4/2023	-0.69%	-0.12%
5/5/2023	1.86%	1.65%
5/8/2023	0.08%	-0.79%
5/9/2023	-0.39%	0.15%
5/10/2023	0.41%	0.40%
5/11/2023	-0.26%	-0.76%
5/12/2023	-0.19%	-0.33%
5/15/2023	0.50%	1.34%
5/16/2023	-0.81%	-2.47%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
5/17/2023	1.23%	0.33%
5/18/2023	0.84%	-0.42%
5/19/2023	-0.19%	0.86%
5/22/2023	0.19%	0.63%
5/23/2023	-1.05%	0.04%
5/24/2023	-0.80%	-1.31%
5/25/2023	0.49%	-2.07%
5/26/2023	1.25%	0.12%
5/30/2023	-0.02%	-0.65%
5/31/2023	-0.57%	0.55%
6/1/2023	1.01%	0.24%
6/2/2023	1.61%	1.74%
6/5/2023	-0.28%	0.40%
6/6/2023	0.52%	-0.16%
6/7/2023	-0.20%	-0.33%
6/8/2023	0.52%	0.47%
6/9/2023	0.01%	-0.59%
6/12/2023	0.85%	0.83%
6/13/2023	0.75%	1.19%
6/14/2023	0.01%	-0.78%
6/15/2023	1.16%	1.22%
6/16/2023	-0.38%	-0.37%
6/20/2023	-0.54%	-0.51%
6/21/2023	-0.47%	-0.43%
6/22/2023	0.18%	0.09%
6/23/2023	-0.85%	-1.25%
6/26/2023	-0.27%	-1.27%
6/27/2023	1.16%	-1.14%
6/28/2023	0.05%	0.51%
6/29/2023	0.47%	-0.54%
6/30/2023	1.10%	0.85%
7/3/2023	0.21%	-0.50%
7/5/2023	-0.33%	0.30%
7/6/2023	-0.97%	-1.35%
7/7/2023	0.00%	-0.85%
7/10/2023	0.41%	1.81%
7/11/2023	0.77%	0.10%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
7/12/2023	0.80%	0.87%
7/13/2023	0.93%	0.41%
7/14/2023	-0.30%	-0.19%
7/17/2023	0.45%	0.67%
7/18/2023	0.73%	0.33%
7/19/2023	0.26%	0.39%
7/20/2023	-0.72%	-0.30%
7/21/2023	0.01%	0.68%
7/24/2023	0.33%	-1.49%
7/25/2023	0.23%	-0.24%
7/26/2023	0.08%	-0.29%
7/27/2023	-0.75%	-0.66%
7/28/2023	1.06%	1.69%
7/31/2023	0.32%	-0.09%
8/1/2023	-0.37%	-0.90%
8/2/2023	-1.45%	-0.69%
8/3/2023	-0.24%	-0.28%
8/4/2023	-0.42%	0.42%
8/7/2023	0.75%	-0.56%
8/8/2023	-0.48%	0.65%
8/9/2023	-0.65%	0.36%
8/10/2023	0.01%	0.28%
8/11/2023	-0.09%	0.39%
8/14/2023	0.40%	-0.22%
8/15/2023	-1.19%	-0.27%
8/16/2023	-0.79%	-1.21%
8/17/2023	-0.84%	-0.44%
8/18/2023	0.06%	0.04%
8/21/2023	0.55%	1.52%
8/22/2023	-0.19%	0.05%
8/23/2023	1.10%	0.45%
8/24/2023	-1.26%	-1.00%
8/25/2023	0.70%	0.59%
8/28/2023	0.71%	0.45%
8/29/2023	1.31%	0.80%
8/30/2023	0.38%	0.18%
8/31/2023	-0.11%	-0.86%

**Exhibit-7****Market and Sector Logarithmic Returns**

13 September 2019 through 12 October 2023

<b>Date</b>	<b>Market Index Return</b>	<b>Sector Index Return</b>
9/1/2023	0.28%	0.94%
9/5/2023	-0.61%	-1.41%
9/6/2023	-0.64%	-0.55%
9/7/2023	-0.38%	-0.14%
9/8/2023	0.10%	0.37%
9/11/2023	0.65%	0.45%
9/12/2023	-0.48%	0.00%
9/13/2023	0.00%	-0.59%
9/14/2023	0.90%	0.42%
9/15/2023	-1.06%	-0.82%
9/18/2023	-0.04%	-1.08%
9/19/2023	-0.26%	0.36%
9/20/2023	-0.83%	-0.71%
9/21/2023	-1.70%	-1.02%
9/22/2023	-0.19%	-0.34%
9/25/2023	0.34%	-0.30%
9/26/2023	-1.42%	0.72%
9/27/2023	0.11%	0.35%
9/28/2023	0.66%	-0.11%
9/29/2023	-0.26%	-0.47%
10/2/2023	-0.35%	-1.41%
10/3/2023	-1.45%	-0.93%
10/4/2023	0.70%	0.47%
10/5/2023	-0.07%	1.49%
10/6/2023	1.14%	0.56%
10/9/2023	0.61%	-0.52%
10/10/2023	0.64%	0.77%
10/11/2023	0.38%	0.31%
10/12/2023	-0.85%	-1.58%

**Sources:** CRSP (Market Index), and Bloomberg (Sector Index).

**Exhibit-8****Cassava Form 8-K Events**

14 September 2020 through 12 October 2023

<b>Count</b>	<b>Form 8-K Filing Date</b>	<b>News Cited in Form 8-K</b>	<b>Effective Form 8-K Event Date</b>
1	9/14/2020	Cassava Sciences Announces Final Results of a Phase 2b Clinical Study of Sumifilam in Patients with Alzheimer's Disease	9/14/2020
2	11/4/2020	Cassava Sciences Announces Additional Clinical Data from a Phase 2b Study of Sumifilam in Alzheimer's Disease	11/4/2020
3	11/9/2020	Cassava Sciences Reports Third Quarter 2020 Financial Results	11/9/2020
4	11/13/2020	Cassava Sciences Announces Proposed Public Offering of Common Stock; Cassava Sciences Announces Pricing of \$75 Million Public Offering of Common Stock; Other Events	11/13/2020
5	12/11/2020	Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.	12/14/2020
6	1/6/2021	Cassava Sciences Appoints Dr. James Kupiec as Chief Clinical Development Officer	1/4/2021
7	2/8/2021	Cassava Sciences Announces Significant Program Progress and Expected Key Milestones in 2021 for Its Clinical Program in Alzheimer's Disease	2/8/2021
8	2/12/2021	Cassava Sciences Announces \$200 Million Registered Direct Offering of Common Stock	2/10/2021
9	2/12/2021	Cassava Sciences Announces Closing of \$200 Million Registered Direct Offering	2/16/2021
10	3/11/2021	Cassava Sciences Announces Pharmaceutical Supply Agreement for Simufilam	3/9/2021
11	3/23/2021	Cassava Sciences Announces Full-year 2020 Financial Results and Business Highlights	3/23/2021
12	4/21/2021	Cassava Sciences Reports First Quarter 2021 Financial Results and Announces Guidance on Clinical Data Release	4/21/2021
13	5/6/2021	Submission of Matters to a Vote of Security Holders	5/7/2021
14	6/14/2021	Cassava Sciences Announces the Appointment of Richard J. Barry to its Board of Directors	6/14/2021
15	6/21/2021	Cassava Sciences Selects Clinical Research Organization for Phase 3 Clinical Program in Alzheimer's Disease	6/22/2021
16	8/3/2021	Cassava Sciences Announces Positive Cognition Data With Simufilam in Alzheimer's Disease; Cassava Sciences Announces Positive Biomarker Data with Simufilam in Alzheimer's Disease	7/29/2021
17	8/3/2021	Cassava Sciences Reports Second Quarter 2021 Financial Results	8/3/2021
18	11/10/2021	Cassava Sciences Reports Third Quarter 2021 Financial Results	11/10/2021
19	1/6/2022	Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers	1/7/2022
20	2/28/2022	Cassava Sciences Reports Full-year 2021 Financial Results and Operating Updates	3/1/2022
21	4/26/2022	Cassava Sciences, Inc. Letter to Science Editor of The New York Times, dated April 26, 2022	4/26/2022
22	5/5/2022	Cassava Sciences Reports First Quarter Financial Results for 2022 and Updates on Phase 3 Clinical Program	5/5/2022

**Exhibit-8****Cassava Form 8-K Events**

14 September 2020 through 12 October 2023

<b>Count</b>	<b>Form 8-K Filing Date</b>	<b>News Cited in Form 8-K</b>	<b>Effective Form 8-K Event Date</b>
23	5/9/2022	Submission of Matters to a Vote of Security Holders	5/10/2022
24	8/3/2022	Cassava Sciences Reports Second Quarter Financial Results for 2022, Mid-year Corporate Update and Interim Analysis of Open-label Study	8/3/2022
25	9/23/2022	Regulation FD Disclosure	9/23/2022
26	10/27/2022	Cassava Sciences Announces Expansion of Leadership Team	10/27/2022
27	11/3/2022	Cassava Sciences Files Lawsuit Against Perpetrators of “Short and Distort” Campaign	11/3/2022
28	11/7/2022	Cassava Sciences Reports Third Quarter Financial Results for 2022 and Business Updates	11/7/2022
29	11/22/2022	Cassava Sciences Announces \$50 Million Registered Direct Offering of Common Stock	11/18/2022
30	11/22/2022	Cassava Sciences Announces Closing of \$50 Million Registered Direct Offering	11/22/2022
31	12/22/2022	Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year	12/23/2022
32	1/24/2023	Cassava Sciences Announces Positive Top-Line Clinical Results in Phase 2 Study Evaluating Simufilam in Alzheimer’s Disease	1/24/2023
33	2/28/2023	Cassava Sciences Reports Full-year 2022 Financial Results and Operating Updates	2/28/2023
34	3/10/2023	Cassava Sciences, Inc. confirmed today that it has no financial exposure to Silicon Valley Bank or Silvergate Bank	3/10/2023
35	3/16/2023	Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers	3/17/2023
36	5/1/2023	Cassava Sciences Reports Q1 2023 Financial Results and Operating Updates	5/1/2023
37	5/1/2023	Termination of a Material Definitive Agreement; Entry Into a Material Definitive Agreement	5/2/2023
38	5/8/2023	Submission of Matters to a Vote of Security Holders	5/9/2023
39	7/5/2023	Oral Simufilam Slowed Cognitive Decline in a Randomized Withdrawal Trial of Mild-to-Moderate Alzheimer’s Disease	7/5/2023
40	8/3/2023	Cassava Sciences Reports Q2 2023 Financial Results and Operating Updates	8/3/2023
41	9/13/2023	Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year	9/14/2023

**Sources:** EDGAR, and Factiva.**Note:** Effective Form 8-K Event Dates are identified as described in the report.

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank<sup>*</sup></b>
11/4/2021	26	1*
8/30/2021	25	2*
9/14/2020	24	3*
2/2/2021	23	4*
8/25/2021	23	4*
11/18/2021	20	6*
8/27/2021	19	7*
12/21/2021	17	8*
9/22/2021	16	9*
2/16/2021	15	10*
8/3/2021	15	10*
9/3/2021	15	10*
2/11/2022	15	10*
8/17/2022	15	10*
1/24/2023	15	10*
10/25/2021	14	16*
11/13/2020	13	17*
4/21/2021	13	17*
6/21/2021	13	17*
9/14/2021	13	17*
7/27/2022	13	17*
8/3/2022	13	17*
12/28/2020	12	23*
2/8/2021	12	23*
2/22/2021	12	23*
9/13/2021	12	23*
10/6/2021	12	23*
7/29/2021	11	28*
9/7/2021	11	28*
11/4/2020	10	30*
6/22/2021	10	30*
8/31/2021	10	30*
9/23/2021	10	30*
9/27/2021	10	30*
10/4/2021	10	30*
10/23/2020	9	36
11/9/2020	9	36
3/23/2021	9	36



**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
4/27/2021	9	36
7/26/2021	9	36
8/24/2021	9	36
10/5/2021	9	36
10/12/2021	9	36
5/5/2022	9	36
5/16/2023	9	36
10/1/2021	8	46
10/18/2021	8	46
10/19/2021	8	46
11/10/2021	8	46
8/18/2022	8	46
2/10/2021	7	51
3/17/2021	7	51
6/14/2021	7	51
8/26/2021	7	51
9/1/2021	7	51
9/10/2021	7	51
9/20/2021	7	51
9/24/2021	7	51
3/9/2023	7	51
5/9/2023	7	51
7/5/2023	7	51
8/3/2023	7	51
8/21/2023	7	51
9/18/2020	6	64
11/27/2020	6	64
3/9/2021	6	64
5/10/2021	6	64
5/12/2021	6	64
9/8/2021	6	64
10/11/2021	6	64
10/14/2021	6	64
10/21/2021	6	64
10/22/2021	6	64
10/26/2021	6	64
11/17/2021	6	64
9/23/2022	6	64

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
11/7/2022	6	64
2/28/2023	6	64
5/1/2023	6	64
9/15/2020	5	80
9/22/2020	5	80
11/30/2020	5	80
2/23/2021	5	80
7/21/2021	5	80
8/2/2021	5	80
9/2/2021	5	80
9/16/2021	5	80
10/7/2021	5	80
10/13/2021	5	80
12/23/2021	5	80
3/1/2022	5	80
4/19/2022	5	80
8/26/2022	5	80
5/11/2023	5	80
5/15/2023	5	80
10/5/2023	5	80
9/30/2020	4	97
1/4/2021	4	97
2/3/2021	4	97
2/4/2021	4	97
5/24/2021	4	97
6/15/2021	4	97
7/7/2021	4	97
7/20/2021	4	97
7/30/2021	4	97
9/21/2021	4	97
9/30/2021	4	97
10/8/2021	4	97
10/20/2021	4	97
11/15/2021	4	97
1/24/2022	4	97
2/10/2022	4	97
4/5/2022	4	97
4/20/2022	4	97

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
4/27/2022	4	97
9/22/2022	4	97
9/28/2022	4	97
10/13/2022	4	97
11/3/2022	4	97
11/4/2022	4	97
11/14/2022	4	97
11/18/2022	4	97
1/25/2023	4	97
2/8/2023	4	97
5/2/2023	4	97
7/6/2023	4	97
9/21/2020	3	127
9/23/2020	3	127
9/25/2020	3	127
11/23/2020	3	127
3/1/2021	3	127
4/5/2021	3	127
5/21/2021	3	127
6/11/2021	3	127
6/23/2021	3	127
7/2/2021	3	127
7/15/2021	3	127
9/9/2021	3	127
9/15/2021	3	127
9/17/2021	3	127
11/19/2021	3	127
2/4/2022	3	127
2/14/2022	3	127
3/3/2022	3	127
3/30/2022	3	127
4/4/2022	3	127
4/25/2022	3	127
5/9/2022	3	127
5/12/2022	3	127
5/23/2022	3	127
8/1/2022	3	127
8/11/2022	3	127

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
8/15/2022	3	127
10/27/2022	3	127
10/31/2022	3	127
11/8/2022	3	127
11/22/2022	3	127
12/6/2022	3	127
3/17/2023	3	127
5/3/2023	3	127
5/22/2023	3	127
6/12/2023	3	127
9/11/2023	3	127
10/2/2023	3	127
11/5/2020	2	165
11/16/2020	2	165
2/5/2021	2	165
2/9/2021	2	165
3/8/2021	2	165
3/12/2021	2	165
3/24/2021	2	165
4/26/2021	2	165
4/30/2021	2	165
5/18/2021	2	165
6/2/2021	2	165
6/18/2021	2	165
6/28/2021	2	165
7/6/2021	2	165
7/9/2021	2	165
7/22/2021	2	165
7/27/2021	2	165
8/4/2021	2	165
9/28/2021	2	165
10/15/2021	2	165
10/29/2021	2	165
11/2/2021	2	165
11/3/2021	2	165
11/5/2021	2	165
11/8/2021	2	165
11/12/2021	2	165

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
11/22/2021	2	165
12/22/2021	2	165
4/11/2022	2	165
4/18/2022	2	165
4/22/2022	2	165
4/26/2022	2	165
5/2/2022	2	165
5/6/2022	2	165
5/10/2022	2	165
5/31/2022	2	165
6/1/2022	2	165
6/2/2022	2	165
7/29/2022	2	165
8/16/2022	2	165
8/22/2022	2	165
9/8/2022	2	165
9/13/2022	2	165
9/21/2022	2	165
9/26/2022	2	165
10/4/2022	2	165
10/12/2022	2	165
10/17/2022	2	165
10/28/2022	2	165
11/1/2022	2	165
11/16/2022	2	165
11/21/2022	2	165
11/29/2022	2	165
12/5/2022	2	165
12/20/2022	2	165
1/6/2023	2	165
1/18/2023	2	165
2/24/2023	2	165
3/1/2023	2	165
4/26/2023	2	165
4/27/2023	2	165
5/8/2023	2	165
6/26/2023	2	165
6/27/2023	2	165

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
8/24/2023	2	165
8/25/2023	2	165
9/6/2023	2	165
9/12/2023	2	165
9/18/2023	2	165
10/9/2023	2	165
10/1/2020	1	235
10/2/2020	1	235
10/6/2020	1	235
10/12/2020	1	235
10/22/2020	1	235
11/2/2020	1	235
11/6/2020	1	235
12/1/2020	1	235
12/3/2020	1	235
12/7/2020	1	235
12/14/2020	1	235
12/23/2020	1	235
1/5/2021	1	235
1/7/2021	1	235
1/13/2021	1	235
1/22/2021	1	235
1/25/2021	1	235
1/26/2021	1	235
3/4/2021	1	235
3/11/2021	1	235
3/16/2021	1	235
3/22/2021	1	235
3/29/2021	1	235
4/1/2021	1	235
4/6/2021	1	235
4/22/2021	1	235
4/23/2021	1	235
4/28/2021	1	235
5/3/2021	1	235
5/5/2021	1	235
5/7/2021	1	235
5/11/2021	1	235

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
5/13/2021	1	235
5/17/2021	1	235
5/28/2021	1	235
6/1/2021	1	235
6/7/2021	1	235
6/25/2021	1	235
6/29/2021	1	235
6/30/2021	1	235
7/12/2021	1	235
8/5/2021	1	235
8/6/2021	1	235
8/10/2021	1	235
8/13/2021	1	235
8/16/2021	1	235
8/20/2021	1	235
10/27/2021	1	235
10/28/2021	1	235
11/1/2021	1	235
11/9/2021	1	235
11/11/2021	1	235
11/29/2021	1	235
11/30/2021	1	235
12/2/2021	1	235
12/6/2021	1	235
12/13/2021	1	235
12/17/2021	1	235
12/31/2021	1	235
1/7/2022	1	235
1/11/2022	1	235
1/28/2022	1	235
2/9/2022	1	235
2/15/2022	1	235
2/22/2022	1	235
3/15/2022	1	235
3/25/2022	1	235
3/29/2022	1	235
4/6/2022	1	235
4/7/2022	1	235

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
4/13/2022	1	235
4/28/2022	1	235
5/3/2022	1	235
5/17/2022	1	235
6/8/2022	1	235
6/13/2022	1	235
6/23/2022	1	235
6/27/2022	1	235
7/5/2022	1	235
7/8/2022	1	235
7/11/2022	1	235
7/18/2022	1	235
7/21/2022	1	235
7/22/2022	1	235
7/25/2022	1	235
7/26/2022	1	235
8/5/2022	1	235
8/9/2022	1	235
8/10/2022	1	235
8/25/2022	1	235
9/2/2022	1	235
9/6/2022	1	235
9/27/2022	1	235
10/7/2022	1	235
10/19/2022	1	235
10/24/2022	1	235
11/23/2022	1	235
11/25/2022	1	235
12/8/2022	1	235
12/12/2022	1	235
12/21/2022	1	235
12/22/2022	1	235
12/23/2022	1	235
12/28/2022	1	235
1/4/2023	1	235
1/9/2023	1	235
1/12/2023	1	235
1/17/2023	1	235



**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
1/23/2023	1	235
1/27/2023	1	235
1/30/2023	1	235
2/6/2023	1	235
3/6/2023	1	235
3/10/2023	1	235
3/13/2023	1	235
3/28/2023	1	235
4/4/2023	1	235
4/14/2023	1	235
4/24/2023	1	235
5/12/2023	1	235
5/26/2023	1	235
6/1/2023	1	235
6/6/2023	1	235
6/8/2023	1	235
6/13/2023	1	235
6/20/2023	1	235
7/7/2023	1	235
7/10/2023	1	235
7/12/2023	1	235
7/17/2023	1	235
7/19/2023	1	235
7/27/2023	1	235
7/28/2023	1	235
8/4/2023	1	235
8/8/2023	1	235
8/10/2023	1	235
8/14/2023	1	235
8/17/2023	1	235
8/18/2023	1	235
8/22/2023	1	235
8/28/2023	1	235
9/5/2023	1	235
9/7/2023	1	235
9/14/2023	1	235
9/25/2023	1	235
10/6/2023	1	235

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
10/12/2023	1	235
9/16/2020	0	382
9/17/2020	0	382
9/24/2020	0	382
9/28/2020	0	382
9/29/2020	0	382
10/5/2020	0	382
10/7/2020	0	382
10/8/2020	0	382
10/9/2020	0	382
10/13/2020	0	382
10/14/2020	0	382
10/15/2020	0	382
10/16/2020	0	382
10/19/2020	0	382
10/20/2020	0	382
10/21/2020	0	382
10/26/2020	0	382
10/27/2020	0	382
10/28/2020	0	382
10/29/2020	0	382
10/30/2020	0	382
11/3/2020	0	382
11/10/2020	0	382
11/11/2020	0	382
11/12/2020	0	382
11/17/2020	0	382
11/18/2020	0	382
11/19/2020	0	382
11/20/2020	0	382
11/24/2020	0	382
11/25/2020	0	382
12/2/2020	0	382
12/4/2020	0	382
12/8/2020	0	382
12/9/2020	0	382
12/10/2020	0	382
12/11/2020	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
12/15/2020	0	382
12/16/2020	0	382
12/17/2020	0	382
12/18/2020	0	382
12/21/2020	0	382
12/22/2020	0	382
12/24/2020	0	382
12/29/2020	0	382
12/30/2020	0	382
12/31/2020	0	382
1/6/2021	0	382
1/8/2021	0	382
1/11/2021	0	382
1/12/2021	0	382
1/14/2021	0	382
1/15/2021	0	382
1/19/2021	0	382
1/20/2021	0	382
1/21/2021	0	382
1/27/2021	0	382
1/28/2021	0	382
1/29/2021	0	382
2/1/2021	0	382
2/11/2021	0	382
2/12/2021	0	382
2/17/2021	0	382
2/18/2021	0	382
2/19/2021	0	382
2/24/2021	0	382
2/25/2021	0	382
2/26/2021	0	382
3/2/2021	0	382
3/3/2021	0	382
3/5/2021	0	382
3/10/2021	0	382
3/15/2021	0	382
3/18/2021	0	382
3/19/2021	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
3/25/2021	0	382
3/26/2021	0	382
3/30/2021	0	382
3/31/2021	0	382
4/7/2021	0	382
4/8/2021	0	382
4/9/2021	0	382
4/12/2021	0	382
4/13/2021	0	382
4/14/2021	0	382
4/15/2021	0	382
4/16/2021	0	382
4/19/2021	0	382
4/20/2021	0	382
4/29/2021	0	382
5/4/2021	0	382
5/6/2021	0	382
5/14/2021	0	382
5/19/2021	0	382
5/20/2021	0	382
5/25/2021	0	382
5/26/2021	0	382
5/27/2021	0	382
6/3/2021	0	382
6/4/2021	0	382
6/8/2021	0	382
6/9/2021	0	382
6/10/2021	0	382
6/16/2021	0	382
6/17/2021	0	382
6/24/2021	0	382
7/1/2021	0	382
7/8/2021	0	382
7/13/2021	0	382
7/14/2021	0	382
7/16/2021	0	382
7/19/2021	0	382
7/23/2021	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
7/28/2021	0	382
8/9/2021	0	382
8/11/2021	0	382
8/12/2021	0	382
8/17/2021	0	382
8/18/2021	0	382
8/19/2021	0	382
8/23/2021	0	382
9/29/2021	0	382
11/16/2021	0	382
11/23/2021	0	382
11/24/2021	0	382
11/26/2021	0	382
12/1/2021	0	382
12/3/2021	0	382
12/7/2021	0	382
12/8/2021	0	382
12/9/2021	0	382
12/10/2021	0	382
12/14/2021	0	382
12/15/2021	0	382
12/16/2021	0	382
12/20/2021	0	382
12/27/2021	0	382
12/28/2021	0	382
12/29/2021	0	382
12/30/2021	0	382
1/3/2022	0	382
1/4/2022	0	382
1/5/2022	0	382
1/6/2022	0	382
1/10/2022	0	382
1/12/2022	0	382
1/13/2022	0	382
1/14/2022	0	382
1/18/2022	0	382
1/19/2022	0	382
1/20/2022	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
1/21/2022	0	382
1/25/2022	0	382
1/26/2022	0	382
1/27/2022	0	382
1/31/2022	0	382
2/1/2022	0	382
2/2/2022	0	382
2/3/2022	0	382
2/7/2022	0	382
2/8/2022	0	382
2/16/2022	0	382
2/17/2022	0	382
2/18/2022	0	382
2/23/2022	0	382
2/24/2022	0	382
2/25/2022	0	382
2/28/2022	0	382
3/2/2022	0	382
3/4/2022	0	382
3/7/2022	0	382
3/8/2022	0	382
3/9/2022	0	382
3/10/2022	0	382
3/11/2022	0	382
3/14/2022	0	382
3/16/2022	0	382
3/17/2022	0	382
3/18/2022	0	382
3/21/2022	0	382
3/22/2022	0	382
3/23/2022	0	382
3/24/2022	0	382
3/28/2022	0	382
3/31/2022	0	382
4/1/2022	0	382
4/8/2022	0	382
4/12/2022	0	382
4/14/2022	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
4/21/2022	0	382
4/29/2022	0	382
5/4/2022	0	382
5/11/2022	0	382
5/13/2022	0	382
5/16/2022	0	382
5/18/2022	0	382
5/19/2022	0	382
5/20/2022	0	382
5/24/2022	0	382
5/25/2022	0	382
5/26/2022	0	382
5/27/2022	0	382
6/3/2022	0	382
6/6/2022	0	382
6/7/2022	0	382
6/9/2022	0	382
6/10/2022	0	382
6/14/2022	0	382
6/15/2022	0	382
6/16/2022	0	382
6/17/2022	0	382
6/21/2022	0	382
6/22/2022	0	382
6/24/2022	0	382
6/28/2022	0	382
6/29/2022	0	382
6/30/2022	0	382
7/1/2022	0	382
7/6/2022	0	382
7/7/2022	0	382
7/12/2022	0	382
7/13/2022	0	382
7/14/2022	0	382
7/15/2022	0	382
7/19/2022	0	382
7/20/2022	0	382
7/28/2022	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
8/2/2022	0	382
8/4/2022	0	382
8/8/2022	0	382
8/12/2022	0	382
8/19/2022	0	382
8/23/2022	0	382
8/24/2022	0	382
8/29/2022	0	382
8/30/2022	0	382
8/31/2022	0	382
9/1/2022	0	382
9/7/2022	0	382
9/9/2022	0	382
9/12/2022	0	382
9/14/2022	0	382
9/15/2022	0	382
9/16/2022	0	382
9/19/2022	0	382
9/20/2022	0	382
9/29/2022	0	382
9/30/2022	0	382
10/3/2022	0	382
10/5/2022	0	382
10/6/2022	0	382
10/10/2022	0	382
10/11/2022	0	382
10/14/2022	0	382
10/18/2022	0	382
10/20/2022	0	382
10/21/2022	0	382
10/25/2022	0	382
10/26/2022	0	382
11/2/2022	0	382
11/9/2022	0	382
11/10/2022	0	382
11/11/2022	0	382
11/15/2022	0	382
11/17/2022	0	382



**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank<sup>*</sup></b>
11/28/2022	0	382
11/30/2022	0	382
12/1/2022	0	382
12/2/2022	0	382
12/7/2022	0	382
12/9/2022	0	382
12/13/2022	0	382
12/14/2022	0	382
12/15/2022	0	382
12/16/2022	0	382
12/19/2022	0	382
12/27/2022	0	382
12/29/2022	0	382
12/30/2022	0	382
1/3/2023	0	382
1/5/2023	0	382
1/10/2023	0	382
1/11/2023	0	382
1/13/2023	0	382
1/19/2023	0	382
1/20/2023	0	382
1/26/2023	0	382
1/31/2023	0	382
2/1/2023	0	382
2/2/2023	0	382
2/3/2023	0	382
2/7/2023	0	382
2/9/2023	0	382
2/10/2023	0	382
2/13/2023	0	382
2/14/2023	0	382
2/15/2023	0	382
2/16/2023	0	382
2/17/2023	0	382
2/21/2023	0	382
2/22/2023	0	382
2/23/2023	0	382
2/27/2023	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
3/2/2023	0	382
3/3/2023	0	382
3/7/2023	0	382
3/8/2023	0	382
3/14/2023	0	382
3/15/2023	0	382
3/16/2023	0	382
3/20/2023	0	382
3/21/2023	0	382
3/22/2023	0	382
3/23/2023	0	382
3/24/2023	0	382
3/27/2023	0	382
3/29/2023	0	382
3/30/2023	0	382
3/31/2023	0	382
4/3/2023	0	382
4/5/2023	0	382
4/6/2023	0	382
4/10/2023	0	382
4/11/2023	0	382
4/12/2023	0	382
4/13/2023	0	382
4/17/2023	0	382
4/18/2023	0	382
4/19/2023	0	382
4/20/2023	0	382
4/21/2023	0	382
4/25/2023	0	382
4/28/2023	0	382
5/4/2023	0	382
5/5/2023	0	382
5/10/2023	0	382
5/17/2023	0	382
5/18/2023	0	382
5/19/2023	0	382
5/23/2023	0	382
5/24/2023	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>News Article Count</b>	<b>Rank*</b>
5/25/2023	0	382
5/30/2023	0	382
5/31/2023	0	382
6/2/2023	0	382
6/5/2023	0	382
6/7/2023	0	382
6/9/2023	0	382
6/14/2023	0	382
6/15/2023	0	382
6/16/2023	0	382
6/21/2023	0	382
6/22/2023	0	382
6/23/2023	0	382
6/28/2023	0	382
6/29/2023	0	382
6/30/2023	0	382
7/3/2023	0	382
7/11/2023	0	382
7/13/2023	0	382
7/14/2023	0	382
7/18/2023	0	382
7/20/2023	0	382
7/21/2023	0	382
7/24/2023	0	382
7/25/2023	0	382
7/26/2023	0	382
7/31/2023	0	382
8/1/2023	0	382
8/2/2023	0	382
8/7/2023	0	382
8/9/2023	0	382
8/11/2023	0	382
8/15/2023	0	382
8/16/2023	0	382
8/23/2023	0	382
8/29/2023	0	382
8/30/2023	0	382
8/31/2023	0	382

**Exhibit-9****Cassava News Article Count and Date Rank**

14 September 2020 through 12 October 2023

<b>News Article</b>		
<b>Date</b>	<b>Count</b>	<b>Rank*</b>
9/1/2023	0	382
9/8/2023	0	382
9/13/2023	0	382
9/15/2023	0	382
9/19/2023	0	382
9/20/2023	0	382
9/21/2023	0	382
9/22/2023	0	382
9/26/2023	0	382
9/27/2023	0	382
9/28/2023	0	382
9/29/2023	0	382
10/3/2023	0	382
10/4/2023	0	382
10/10/2023	0	382
10/11/2023	0	382

**Source:** Factiva.

"\*" denotes 5% Top News Article Count date.

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/14/2020	0.007	0.494	0.631	0.005	0.441	0.454	1.38	1.12	1.39	0.653	7.77%
9/15/2020	0.007	0.494	0.631	0.005	0.442	0.455	1.38	1.12	1.39	0.652	7.79%
9/16/2020	0.006	0.515	0.598	0.005	0.444	0.457	1.26	1.16	1.31	0.649	7.82%
9/17/2020	0.006	0.514	0.599	0.005	0.444	0.457	1.24	1.16	1.31	0.649	7.82%
9/18/2020	0.006	0.519	0.593	0.005	0.444	0.457	1.27	1.17	1.30	0.659	7.82%
9/21/2020	0.008	0.388	0.718	0.005	0.461	0.475	1.47	0.84	1.51	0.630	8.13%
9/22/2020	0.008	0.351	0.760	0.005	0.459	0.472	1.55	0.76	1.61	0.632	8.11%
9/23/2020	0.008	0.342	0.776	0.005	0.460	0.473	1.54	0.74	1.64	0.633	8.11%
9/24/2020	0.008	0.368	0.759	0.005	0.460	0.475	1.51	0.80	1.60	0.632	8.12%
9/25/2020	0.008	0.357	0.770	0.005	0.459	0.474	1.47	0.78	1.62	0.634	8.11%
9/28/2020	0.008	0.345	0.809	0.005	0.464	0.479	1.57	0.74	1.69	0.630	8.16%
9/29/2020	0.008	0.331	0.815	0.005	0.463	0.479	1.56	0.71	1.70	0.630	8.16%
9/30/2020	0.008	0.330	0.816	0.005	0.463	0.479	1.59	0.71	1.71	0.630	8.16%
10/1/2020	0.008	0.327	0.824	0.005	0.463	0.479	1.56	0.71	1.72	0.630	8.16%
10/2/2020	0.008	0.328	0.821	0.005	0.463	0.479	1.53	0.71	1.71	0.630	8.16%
10/5/2020	0.008	0.298	0.866	0.005	0.463	0.478	1.52	0.64	1.81	0.630	8.16%
10/6/2020	0.008	0.276	0.897	0.005	0.460	0.472	1.52	0.60	1.90	0.630	8.17%
10/7/2020	0.008	0.275	0.899	0.005	0.460	0.472	1.53	0.60	1.90	0.630	8.17%
10/8/2020	0.008	0.273	0.909	0.005	0.461	0.472	1.54	0.59	1.92	0.630	8.17%
10/9/2020	0.008	0.279	0.904	0.005	0.461	0.472	1.57	0.61	1.92	0.630	8.17%
10/12/2020	0.008	0.275	0.905	0.005	0.461	0.473	1.53	0.60	1.91	0.630	8.17%
10/13/2020	0.008	0.260	0.914	0.005	0.461	0.473	1.48	0.56	1.93	0.629	8.18%
10/14/2020	0.008	0.267	0.907	0.005	0.461	0.473	1.47	0.58	1.92	0.629	8.18%
10/15/2020	0.008	0.261	0.918	0.005	0.461	0.473	1.47	0.57	1.94	0.629	8.18%
10/16/2020	0.008	0.264	0.914	0.005	0.458	0.469	1.50	0.58	1.95	0.629	8.18%
10/19/2020	0.008	0.269	0.908	0.005	0.458	0.469	1.48	0.59	1.94	0.629	8.19%
10/20/2020	0.008	0.266	0.921	0.005	0.458	0.469	1.43	0.58	1.96	0.629	8.19%
10/21/2020	0.008	0.238	0.959	0.005	0.458	0.469	1.45	0.52	2.05	0.630	8.18%
10/22/2020	0.008	0.179	1.028	0.005	0.458	0.468	1.48	0.39	2.20	0.631	8.17%
10/23/2020	0.007	0.184	1.019	0.005	0.457	0.467	1.40	0.40	2.18	0.632	8.16%
10/26/2020	0.007	0.183	1.021	0.005	0.457	0.467	1.40	0.40	2.19	0.632	8.15%
10/27/2020	0.007	0.187	1.020	0.005	0.456	0.467	1.36	0.41	2.18	0.632	8.15%
10/28/2020	0.007	0.179	1.032	0.005	0.456	0.467	1.40	0.39	2.21	0.632	8.15%
10/29/2020	0.007	0.187	1.031	0.005	0.454	0.466	1.38	0.41	2.21	0.633	8.13%
10/30/2020	0.007	0.187	1.031	0.005	0.454	0.466	1.39	0.41	2.21	0.634	8.13%
11/2/2020	0.007	0.179	1.047	0.005	0.454	0.465	1.37	0.39	2.25	0.634	8.14%
11/3/2020	0.008	0.195	1.041	0.005	0.454	0.467	1.45	0.43	2.23	0.633	8.15%
11/4/2020	0.008	0.199	1.037	0.005	0.454	0.467	1.47	0.44	2.22	0.637	8.15%
11/5/2020	0.008	0.199	1.037	0.005	0.455	0.468	1.47	0.44	2.21	0.636	8.16%
11/6/2020	0.007	0.121	1.108	0.005	0.454	0.468	1.36	0.27	2.37	0.634	8.19%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
11/9/2020	0.007	0.135	1.092	0.005	0.453	0.466	1.40	0.30	2.34	0.634	8.19%
11/10/2020	0.008	0.111	1.123	0.005	0.455	0.469	1.43	0.24	2.39	0.633	8.20%
11/11/2020	0.008	0.114	1.120	0.005	0.455	0.469	1.42	0.25	2.39	0.633	8.20%
11/12/2020	0.008	0.108	1.132	0.005	0.455	0.470	1.48	0.24	2.41	0.633	8.21%
11/13/2020	0.008	0.101	1.138	0.005	0.455	0.469	1.51	0.22	2.43	0.639	8.21%
11/16/2020	0.008	0.103	1.136	0.005	0.456	0.471	1.51	0.23	2.41	0.638	8.23%
11/17/2020	0.008	0.084	1.156	0.005	0.455	0.471	1.50	0.19	2.46	0.638	8.23%
11/18/2020	0.008	0.083	1.158	0.005	0.455	0.471	1.48	0.18	2.46	0.638	8.23%
11/19/2020	0.008	0.074	1.174	0.005	0.457	0.472	1.44	0.16	2.49	0.638	8.24%
11/20/2020	0.008	0.067	1.181	0.005	0.457	0.473	1.45	0.15	2.50	0.638	8.24%
11/23/2020	0.008	0.077	1.171	0.005	0.457	0.472	1.43	0.17	2.48	0.638	8.24%
11/24/2020	0.007	0.071	1.174	0.005	0.457	0.473	1.38	0.16	2.48	0.637	8.24%
11/25/2020	0.007	0.096	1.144	0.005	0.455	0.473	1.38	0.21	2.42	0.637	8.24%
11/27/2020	0.008	0.089	1.152	0.005	0.455	0.473	1.42	0.20	2.44	0.637	8.25%
11/30/2020	0.007	0.113	1.120	0.005	0.452	0.467	1.39	0.25	2.40	0.636	8.25%
12/1/2020	0.007	0.128	1.105	0.005	0.451	0.466	1.35	0.28	2.37	0.636	8.25%
12/2/2020	0.006	0.121	1.125	0.005	0.448	0.463	1.21	0.27	2.43	0.640	8.20%
12/3/2020	0.006	0.110	1.136	0.005	0.449	0.464	1.20	0.24	2.45	0.640	8.20%
12/4/2020	0.006	0.110	1.135	0.005	0.448	0.463	1.19	0.25	2.45	0.640	8.20%
12/7/2020	0.006	0.100	1.148	0.005	0.449	0.465	1.18	0.22	2.47	0.640	8.20%
12/8/2020	0.006	0.101	1.148	0.005	0.449	0.464	1.16	0.22	2.47	0.641	8.18%
12/9/2020	0.007	0.099	1.149	0.005	0.447	0.462	1.24	0.22	2.49	0.642	8.17%
12/10/2020	0.007	0.095	1.153	0.005	0.447	0.462	1.26	0.21	2.50	0.642	8.17%
12/11/2020	0.006	0.101	1.143	0.005	0.447	0.461	1.20	0.23	2.48	0.642	8.17%
12/14/2020	0.006	0.093	1.144	0.005	0.446	0.460	1.17	0.21	2.48	0.643	8.16%
12/15/2020	0.006	0.093	1.144	0.005	0.447	0.461	1.17	0.21	2.48	0.641	8.17%
12/16/2020	0.007	0.102	1.140	0.005	0.446	0.461	1.22	0.23	2.47	0.641	8.17%
12/17/2020	0.007	0.105	1.136	0.005	0.446	0.460	1.25	0.24	2.47	0.642	8.17%
12/18/2020	0.007	0.107	1.137	0.005	0.446	0.460	1.32	0.24	2.47	0.642	8.16%
12/21/2020	0.006	0.117	1.121	0.005	0.444	0.458	1.19	0.26	2.45	0.643	8.14%
12/22/2020	0.006	0.133	1.094	0.005	0.441	0.455	1.05	0.30	2.41	0.647	8.08%
12/23/2020	0.003	0.206	1.000	0.005	0.410	0.423	0.70	0.50	2.36	0.679	7.52%
12/24/2020	0.002	0.235	0.963	0.005	0.402	0.415	0.51	0.59	2.32	0.688	7.37%
12/28/2020	0.003	0.268	0.929	0.005	0.400	0.413	0.60	0.67	2.25	0.691	7.33%
12/29/2020	0.002	0.196	1.018	0.005	0.387	0.400	0.36	0.51	2.55	0.703	7.13%
12/30/2020	0.001	0.166	1.068	0.005	0.383	0.395	0.16	0.43	2.71	0.709	7.04%
12/31/2020	0.002	0.164	1.077	0.005	0.378	0.390	0.34	0.43	2.76	0.714	6.96%
1/4/2021	0.000	0.035	1.209	0.004	0.360	0.371	0.02	0.10	3.26	0.735	6.61%
1/5/2021	-0.001	-0.011	1.287	0.004	0.343	0.354	-0.30	-0.03	3.63	0.754	6.31%
1/6/2021	0.000	-0.005	1.292	0.004	0.342	0.353	-0.09	-0.02	3.66	0.756	6.28%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
1/7/2021	0.000	-0.019	1.310	0.004	0.340	0.350	0.07	-0.06	3.74	0.758	6.24%
1/8/2021	0.000	-0.006	1.288	0.004	0.338	0.347	-0.04	-0.02	3.71	0.760	6.21%
1/11/2021	0.000	-0.003	1.289	0.004	0.336	0.346	0.04	-0.01	3.73	0.761	6.18%
1/12/2021	0.000	-0.002	1.290	0.004	0.336	0.346	0.00	-0.01	3.73	0.762	6.18%
1/13/2021	0.001	0.068	1.213	0.004	0.334	0.344	0.13	0.20	3.53	0.772	6.11%
1/14/2021	0.002	0.120	1.151	0.004	0.356	0.367	0.41	0.34	3.14	0.743	6.49%
1/15/2021	0.001	0.198	1.053	0.004	0.354	0.364	0.18	0.56	2.89	0.741	6.50%
1/19/2021	0.001	0.194	1.056	0.004	0.353	0.364	0.18	0.55	2.91	0.744	6.50%
1/20/2021	0.002	0.160	1.116	0.004	0.359	0.369	0.39	0.45	3.03	0.736	6.60%
1/21/2021	0.002	0.147	1.122	0.004	0.359	0.369	0.36	0.41	3.04	0.735	6.61%
1/22/2021	0.001	0.145	1.125	0.004	0.358	0.369	0.34	0.40	3.05	0.736	6.61%
1/25/2021	0.002	0.140	1.131	0.004	0.358	0.369	0.43	0.39	3.07	0.738	6.61%
1/26/2021	0.003	0.094	1.186	0.004	0.363	0.374	0.63	0.26	3.17	0.733	6.70%
1/27/2021	0.004	0.181	1.070	0.004	0.372	0.382	0.84	0.49	2.80	0.719	6.87%
1/28/2021	0.003	0.185	1.033	0.004	0.367	0.377	0.74	0.50	2.74	0.724	6.78%
1/29/2021	0.003	0.174	1.041	0.004	0.368	0.377	0.72	0.47	2.76	0.724	6.79%
2/1/2021	0.004	0.151	1.058	0.004	0.367	0.377	0.79	0.41	2.81	0.724	6.80%
2/2/2021	0.004	0.182	1.050	0.004	0.369	0.380	0.88	0.49	2.76	0.763	6.85%
2/3/2021	0.008	0.301	1.035	0.006	0.479	0.493	1.33	0.63	2.10	0.619	8.87%
2/4/2021	0.010	0.357	0.972	0.006	0.505	0.521	1.58	0.71	1.86	0.584	9.35%
2/5/2021	0.008	0.360	0.928	0.006	0.521	0.539	1.32	0.69	1.72	0.569	9.64%
2/8/2021	0.007	0.445	0.799	0.006	0.537	0.555	1.06	0.83	1.44	0.549	9.94%
2/9/2021	0.007	0.447	0.794	0.006	0.538	0.556	1.09	0.83	1.43	0.548	9.95%
2/10/2021	0.007	0.435	0.810	0.006	0.538	0.556	1.06	0.81	1.46	0.549	9.96%
2/11/2021	0.007	0.436	0.809	0.007	0.539	0.557	1.07	0.81	1.45	0.547	9.98%
2/12/2021	0.007	0.435	0.810	0.007	0.540	0.557	1.06	0.81	1.45	0.547	9.98%
2/16/2021	0.007	0.437	0.806	0.007	0.540	0.558	1.03	0.81	1.44	0.548	9.99%
2/17/2021	0.007	0.434	0.810	0.007	0.541	0.559	1.07	0.80	1.45	0.546	10.00%
2/18/2021	0.007	0.436	0.807	0.007	0.541	0.559	1.07	0.81	1.44	0.546	10.00%
2/19/2021	0.007	0.436	0.812	0.007	0.539	0.557	1.12	0.81	1.46	0.548	9.99%
2/22/2021	0.008	0.423	0.830	0.007	0.540	0.557	1.15	0.78	1.49	0.547	10.00%
2/23/2021	0.007	0.431	0.832	0.007	0.539	0.554	1.08	0.80	1.50	0.547	9.99%
2/24/2021	0.007	0.428	0.834	0.007	0.538	0.553	1.07	0.80	1.51	0.547	9.99%
2/25/2021	0.007	0.414	0.835	0.007	0.539	0.552	1.10	0.77	1.51	0.547	9.98%
2/26/2021	0.007	0.379	0.878	0.007	0.540	0.554	1.15	0.70	1.58	0.548	9.97%
3/1/2021	0.007	0.379	0.864	0.007	0.540	0.554	1.13	0.70	1.56	0.548	9.97%
3/2/2021	0.008	0.352	0.890	0.007	0.540	0.555	1.18	0.65	1.60	0.548	9.96%
3/3/2021	0.008	0.359	0.840	0.007	0.539	0.555	1.16	0.67	1.51	0.548	9.95%
3/4/2021	0.008	0.343	0.858	0.007	0.537	0.550	1.16	0.64	1.56	0.548	9.95%
3/5/2021	0.008	0.333	0.922	0.007	0.537	0.550	1.17	0.62	1.67	0.549	9.95%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/8/2021	0.007	0.353	0.901	0.007	0.540	0.551	1.10	0.65	1.64	0.549	9.95%
3/9/2021	0.007	0.367	0.879	0.007	0.540	0.549	1.14	0.68	1.60	0.550	9.96%
3/10/2021	0.008	0.266	0.863	0.007	0.544	0.548	1.24	0.49	1.57	0.547	9.94%
3/11/2021	0.008	0.274	0.860	0.007	0.549	0.550	1.23	0.50	1.56	0.547	9.94%
3/12/2021	0.009	0.230	0.839	0.007	0.548	0.547	1.33	0.42	1.53	0.548	9.91%
3/15/2021	0.010	0.053	0.793	0.006	0.551	0.543	1.49	0.10	1.46	0.548	9.84%
3/16/2021	0.009	-0.107	0.766	0.006	0.555	0.539	1.40	-0.19	1.42	0.550	9.77%
3/17/2021	0.009	-0.065	0.765	0.006	0.583	0.538	1.36	-0.11	1.42	0.552	9.77%
3/18/2021	0.010	-0.046	0.906	0.006	0.584	0.545	1.54	-0.08	1.66	0.551	9.78%
3/19/2021	0.009	0.033	0.916	0.006	0.609	0.548	1.42	0.05	1.67	0.550	9.80%
3/22/2021	0.009	0.043	0.882	0.006	0.607	0.547	1.38	0.07	1.61	0.551	9.78%
3/23/2021	0.009	-0.003	0.869	0.006	0.611	0.546	1.40	-0.01	1.59	0.551	9.78%
3/24/2021	0.009	0.061	0.839	0.007	0.618	0.548	1.33	0.10	1.53	0.550	9.79%
3/25/2021	0.008	0.078	0.867	0.006	0.654	0.547	1.30	0.12	1.59	0.550	9.79%
3/26/2021	0.009	0.126	0.830	0.006	0.660	0.551	1.33	0.19	1.51	0.550	9.79%
3/29/2021	0.008	0.082	0.854	0.006	0.657	0.549	1.29	0.13	1.55	0.551	9.78%
3/30/2021	0.008	0.123	0.858	0.006	0.664	0.549	1.22	0.19	1.56	0.551	9.78%
3/31/2021	0.008	0.140	0.914	0.006	0.662	0.550	1.27	0.21	1.66	0.553	9.76%
4/1/2021	0.008	0.152	0.907	0.006	0.662	0.546	1.24	0.23	1.66	0.553	9.76%
4/5/2021	0.008	0.230	0.908	0.006	0.670	0.546	1.19	0.34	1.66	0.554	9.75%
4/6/2021	0.007	0.223	0.852	0.006	0.668	0.549	1.11	0.33	1.55	0.554	9.74%
4/7/2021	0.007	0.219	0.860	0.006	0.670	0.549	1.07	0.33	1.57	0.554	9.74%
4/8/2021	0.007	0.327	0.863	0.006	0.692	0.547	1.07	0.47	1.58	0.554	9.74%
4/9/2021	0.007	0.341	0.846	0.006	0.693	0.550	1.09	0.49	1.54	0.554	9.73%
4/12/2021	0.007	0.301	0.848	0.006	0.697	0.549	1.06	0.43	1.55	0.556	9.73%
4/13/2021	0.007	0.303	0.894	0.006	0.702	0.550	1.00	0.43	1.63	0.553	9.76%
4/14/2021	0.006	0.404	0.826	0.006	0.702	0.548	0.89	0.57	1.51	0.555	9.73%
4/15/2021	0.006	0.428	0.817	0.006	0.701	0.546	0.88	0.61	1.50	0.555	9.73%
4/16/2021	0.006	0.420	0.811	0.006	0.704	0.546	0.86	0.60	1.48	0.554	9.73%
4/19/2021	0.005	0.419	0.812	0.006	0.707	0.552	0.85	0.59	1.47	0.554	9.73%
4/20/2021	0.006	0.430	0.844	0.006	0.707	0.557	0.86	0.61	1.52	0.555	9.73%
4/21/2021	0.006	0.382	0.885	0.006	0.716	0.563	0.87	0.53	1.57	0.555	9.73%
4/22/2021	0.006	0.398	0.890	0.007	0.722	0.565	0.85	0.55	1.58	0.553	9.75%
4/23/2021	0.006	0.376	0.898	0.006	0.726	0.565	0.87	0.52	1.59	0.554	9.75%
4/26/2021	0.005	0.408	0.895	0.006	0.713	0.556	0.75	0.57	1.61	0.562	9.60%
4/27/2021	0.005	0.399	0.935	0.006	0.712	0.555	0.81	0.56	1.69	0.562	9.59%
4/28/2021	0.005	0.393	0.930	0.006	0.714	0.555	0.84	0.55	1.68	0.562	9.60%
4/29/2021	0.006	0.393	0.931	0.006	0.716	0.558	0.87	0.55	1.67	0.561	9.61%
4/30/2021	0.005	0.331	0.950	0.006	0.725	0.558	0.86	0.46	1.70	0.562	9.60%
5/3/2021	0.006	0.324	0.945	0.006	0.725	0.558	0.87	0.45	1.69	0.562	9.60%



## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/4/2021	0.005	0.329	0.949	0.006	0.732	0.559	0.80	0.45	1.70	0.561	9.62%
5/5/2021	0.005	0.334	0.947	0.006	0.734	0.560	0.77	0.46	1.69	0.560	9.62%
5/6/2021	0.005	0.334	0.955	0.006	0.734	0.561	0.81	0.45	1.70	0.561	9.62%
5/7/2021	0.005	0.331	0.957	0.006	0.732	0.559	0.80	0.45	1.71	0.562	9.60%
5/10/2021	0.005	0.324	0.960	0.006	0.736	0.561	0.80	0.44	1.71	0.561	9.62%
5/11/2021	0.004	0.243	0.997	0.006	0.737	0.559	0.70	0.33	1.78	0.562	9.59%
5/12/2021	0.004	0.269	0.966	0.006	0.745	0.576	0.68	0.36	1.68	0.562	9.59%
5/13/2021	0.004	0.308	0.953	0.006	0.735	0.573	0.65	0.42	1.66	0.562	9.57%
5/14/2021	0.004	0.265	0.962	0.006	0.737	0.573	0.69	0.36	1.68	0.562	9.56%
5/17/2021	0.004	0.254	0.993	0.006	0.740	0.573	0.70	0.34	1.73	0.562	9.57%
5/18/2021	0.005	0.237	1.007	0.006	0.738	0.572	0.75	0.32	1.76	0.332	9.55%
5/19/2021	0.005	0.117	1.056	0.006	0.751	0.574	0.78	0.16	1.84	0.332	9.55%
5/20/2021	0.005	0.116	1.036	0.006	0.751	0.574	0.82	0.15	1.80	0.331	9.55%
5/21/2021	0.005	0.138	1.052	0.006	0.751	0.572	0.86	0.18	1.84	0.332	9.54%
5/24/2021	0.006	0.135	1.044	0.006	0.751	0.572	0.89	0.18	1.82	0.332	9.54%
5/25/2021	0.005	0.115	1.053	0.006	0.749	0.571	0.85	0.15	1.84	0.332	9.54%
5/26/2021	0.005	0.076	1.085	0.006	0.761	0.581	0.83	0.10	1.87	0.332	9.54%
5/27/2021	0.006	0.087	1.089	0.006	0.763	0.581	0.87	0.11	1.87	0.333	9.55%
5/28/2021	0.006	0.073	1.104	0.006	0.765	0.582	0.95	0.10	1.90	0.331	9.56%
6/1/2021	0.006	0.075	1.105	0.006	0.766	0.585	0.93	0.10	1.89	0.331	9.56%
6/2/2021	0.006	0.097	1.084	0.006	0.768	0.586	0.97	0.13	1.85	0.330	9.57%
6/3/2021	0.007	0.111	1.083	0.006	0.769	0.586	1.04	0.14	1.85	0.330	9.57%
6/4/2021	0.007	0.104	1.086	0.006	0.766	0.584	1.05	0.14	1.86	0.280	9.55%
6/7/2021	0.008	0.121	1.028	0.006	0.755	0.576	1.25	0.16	1.79	0.285	9.41%
6/8/2021	0.008	0.172	1.009	0.006	0.761	0.567	1.27	0.23	1.78	0.285	9.41%
6/9/2021	0.008	0.184	1.009	0.006	0.763	0.567	1.30	0.24	1.78	0.286	9.41%
6/10/2021	0.007	0.268	0.954	0.006	0.762	0.564	1.20	0.35	1.69	0.286	9.40%
6/11/2021	0.007	0.258	0.953	0.006	0.763	0.563	1.20	0.34	1.69	0.290	9.40%
6/14/2021	0.008	0.267	0.908	0.006	0.809	0.566	1.30	0.33	1.60	0.281	9.45%
6/15/2021	0.008	0.318	0.895	0.006	0.812	0.567	1.34	0.39	1.58	0.280	9.46%
6/16/2021	0.008	0.305	0.904	0.006	0.812	0.566	1.29	0.38	1.60	0.281	9.46%
6/17/2021	0.008	0.264	0.895	0.006	0.817	0.567	1.35	0.32	1.58	0.277	9.49%
6/18/2021	0.008	0.255	0.898	0.006	0.818	0.567	1.36	0.31	1.58	0.277	9.49%
6/21/2021	0.009	0.243	0.903	0.006	0.813	0.566	1.37	0.30	1.59	0.279	9.49%
6/22/2021	0.009	0.257	0.939	0.006	0.825	0.583	1.46	0.31	1.61	0.282	9.51%
6/23/2021	0.009	0.257	0.939	0.006	0.825	0.583	1.46	0.31	1.61	0.282	9.51%
6/24/2021	0.009	0.255	0.937	0.006	0.825	0.583	1.43	0.31	1.61	0.282	9.50%
6/25/2021	0.008	0.469	0.912	0.006	0.831	0.579	1.31	0.56	1.58	0.287	9.45%
6/28/2021	0.008	0.495	0.913	0.006	0.831	0.579	1.32	0.60	1.58	0.289	9.45%
6/29/2021	0.008	0.621	0.916	0.006	0.837	0.578	1.27	0.74	1.59	0.290	9.43%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/30/2021	0.008	0.736	0.857	0.006	0.843	0.579	1.29	0.87	1.48	0.291	9.41%
7/1/2021	0.008	0.753	0.866	0.006	0.843	0.579	1.33	0.89	1.50	0.291	9.41%
7/2/2021	0.009	0.754	0.875	0.006	0.843	0.578	1.37	0.89	1.51	0.292	9.41%
7/6/2021	0.009	0.760	0.882	0.006	0.841	0.577	1.42	0.90	1.53	0.292	9.40%
7/7/2021	0.009	0.756	0.870	0.006	0.845	0.576	1.44	0.90	1.51	0.292	9.40%
7/8/2021	0.009	0.826	0.821	0.006	0.851	0.577	1.42	0.97	1.42	0.293	9.40%
7/9/2021	0.009	0.749	0.866	0.006	0.848	0.576	1.51	0.88	1.50	0.294	9.42%
7/12/2021	0.009	0.651	0.882	0.006	0.850	0.578	1.44	0.77	1.52	0.288	9.45%
7/13/2021	0.009	0.576	0.927	0.006	0.855	0.581	1.43	0.67	1.60	0.289	9.44%
7/14/2021	0.009	0.615	0.930	0.006	0.854	0.580	1.39	0.72	1.60	0.292	9.43%
7/15/2021	0.009	0.612	0.968	0.006	0.855	0.581	1.37	0.72	1.67	0.297	9.43%
7/16/2021	0.008	0.714	0.961	0.006	0.858	0.583	1.31	0.83	1.65	0.290	9.47%
7/19/2021	0.008	0.759	0.931	0.006	0.851	0.578	1.28	0.89	1.61	0.293	9.45%
7/20/2021	0.008	0.699	0.987	0.006	0.839	0.575	1.35	0.83	1.72	0.295	9.45%
7/21/2021	0.009	0.758	0.991	0.006	0.836	0.576	1.40	0.91	1.72	0.307	9.45%
7/22/2021	0.009	0.821	1.026	0.006	0.850	0.590	1.50	0.97	1.74	0.290	9.57%
7/23/2021	0.010	0.833	1.018	0.006	0.851	0.591	1.56	0.98	1.72	0.289	9.58%
7/26/2021	0.010	0.815	1.017	0.006	0.852	0.592	1.53	0.96	1.72	0.288	9.59%
7/27/2021	0.009	0.793	1.077	0.006	0.847	0.588	1.46	0.94	1.83	0.290	9.57%
7/28/2021	0.010	0.760	1.117	0.006	0.848	0.593	1.56	0.90	1.88	0.290	9.57%
7/29/2021	0.010	0.747	1.129	0.006	0.844	0.585	1.58	0.89	1.93	0.307	9.57%
7/30/2021	0.010	0.783	1.108	0.006	0.855	0.591	1.58	0.92	1.87	0.338	9.59%
8/2/2021	0.008	0.944	1.056	0.007	0.886	0.613	1.28	1.07	1.72	0.291	9.94%
8/3/2021	0.009	0.916	1.069	0.007	0.894	0.621	1.37	1.02	1.72	0.286	9.98%
8/4/2021	0.009	0.902	1.099	0.007	0.897	0.629	1.38	1.01	1.75	0.283	10.00%
8/5/2021	0.009	0.899	1.102	0.007	0.895	0.627	1.41	1.00	1.76	0.287	10.00%
8/6/2021	0.010	0.904	1.143	0.007	0.899	0.627	1.50	1.01	1.82	0.284	10.02%
8/9/2021	0.010	0.909	1.151	0.007	0.898	0.625	1.51	1.01	1.84	0.285	10.02%
8/10/2021	0.010	0.865	1.196	0.007	0.893	0.617	1.55	0.97	1.94	0.284	10.02%
8/11/2021	0.010	0.871	1.185	0.007	0.893	0.616	1.55	0.98	1.92	0.284	10.02%
8/12/2021	0.010	0.902	1.143	0.007	0.886	0.607	1.58	1.02	1.88	0.285	10.02%
8/13/2021	0.011	0.889	1.163	0.007	0.885	0.605	1.64	1.00	1.92	0.283	10.01%
8/16/2021	0.011	0.877	1.171	0.007	0.884	0.605	1.68	0.99	1.94	0.284	10.00%
8/17/2021	0.011	0.859	1.199	0.007	0.884	0.604	1.62	0.97	1.99	0.287	10.00%
8/18/2021	0.010	1.035	1.064	0.007	0.878	0.601	1.51	1.18	1.77	0.281	10.04%
8/19/2021	0.010	1.035	1.049	0.007	0.878	0.601	1.55	1.18	1.75	0.282	10.04%
8/20/2021	0.010	1.019	1.077	0.007	0.876	0.596	1.53	1.16	1.81	0.281	10.04%
8/23/2021	0.010	1.026	1.069	0.007	0.876	0.595	1.54	1.17	1.80	0.283	10.04%
8/24/2021	0.011	1.037	1.087	0.007	0.875	0.590	1.63	1.18	1.84	0.283	10.03%
8/25/2021	0.011	1.075	1.061	0.007	0.880	0.593	1.65	1.22	1.79	0.313	10.03%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/26/2021	0.009	1.078	1.018	0.007	0.909	0.615	1.35	1.19	1.66	0.270	10.36%
8/27/2021	0.009	1.128	1.016	0.007	0.915	0.618	1.26	1.23	1.64	0.274	10.39%
8/30/2021	0.008	0.984	1.060	0.007	0.920	0.623	1.16	1.07	1.70	0.262	10.49%
8/31/2021	0.008	0.956	1.077	0.007	0.922	0.624	1.10	1.04	1.73	0.260	10.51%
9/1/2021	0.008	0.921	1.108	0.007	0.926	0.629	1.15	0.99	1.76	0.261	10.51%
9/2/2021	0.007	0.964	1.059	0.007	0.937	0.637	1.08	1.03	1.66	0.258	10.54%
9/3/2021	0.008	0.962	1.065	0.007	0.935	0.636	1.10	1.03	1.68	0.263	10.51%
9/7/2021	0.007	1.042	1.081	0.007	0.951	0.637	1.00	1.10	1.70	0.262	10.52%
9/8/2021	0.007	1.059	1.078	0.007	0.952	0.637	0.97	1.11	1.69	0.261	10.53%
9/9/2021	0.006	1.167	1.069	0.007	0.968	0.636	0.90	1.21	1.68	0.263	10.52%
9/10/2021	0.007	1.144	1.082	0.007	0.973	0.636	0.94	1.18	1.70	0.262	10.53%
9/13/2021	0.007	1.133	1.084	0.007	0.975	0.636	0.96	1.16	1.70	0.263	10.53%
9/14/2021	0.006	1.098	1.118	0.007	0.973	0.633	0.92	1.13	1.76	0.267	10.52%
9/15/2021	0.006	1.157	1.104	0.007	0.972	0.634	0.84	1.19	1.74	0.101	10.52%
9/16/2021	0.006	1.169	1.134	0.007	0.968	0.632	0.93	1.21	1.79	0.102	10.49%
9/17/2021	0.006	1.173	1.132	0.007	0.968	0.632	0.93	1.21	1.79	0.105	10.49%
9/20/2021	0.007	1.098	1.174	0.007	0.968	0.631	0.98	1.13	1.86	0.102	10.51%
9/21/2021	0.005	1.398	1.010	0.007	0.945	0.618	0.78	1.48	1.63	0.113	10.26%
9/22/2021	0.005	1.378	1.041	0.007	0.946	0.619	0.82	1.46	1.68	0.111	10.27%
9/23/2021	0.005	1.339	1.051	0.007	0.943	0.618	0.78	1.42	1.70	0.115	10.27%
9/24/2021	0.006	1.345	1.072	0.007	0.960	0.620	0.86	1.40	1.73	0.110	10.29%
9/27/2021	0.006	1.371	1.041	0.007	0.960	0.618	0.88	1.43	1.69	0.112	10.29%
9/28/2021	0.006	1.314	0.984	0.007	0.961	0.618	0.89	1.37	1.59	0.106	10.28%
9/29/2021	0.006	1.387	0.967	0.007	0.963	0.617	0.92	1.44	1.57	0.108	10.28%
9/30/2021	0.006	1.393	0.969	0.007	0.964	0.617	0.88	1.44	1.57	0.108	10.28%
10/1/2021	0.006	1.393	0.971	0.007	0.960	0.616	0.89	1.45	1.58	0.108	10.28%
10/4/2021	0.006	1.363	1.001	0.007	0.949	0.608	0.90	1.44	1.65	0.112	10.28%
10/5/2021	0.006	1.402	1.001	0.007	0.948	0.610	0.87	1.48	1.64	0.109	10.29%
10/6/2021	0.006	1.423	0.987	0.007	0.946	0.618	0.88	1.50	1.60	0.110	10.29%
10/7/2021	0.006	1.380	1.027	0.007	0.948	0.617	0.83	1.46	1.67	0.107	10.30%
10/8/2021	0.005	1.366	1.021	0.007	0.950	0.617	0.81	1.44	1.66	0.107	10.30%
10/11/2021	0.005	1.376	1.023	0.007	0.952	0.617	0.80	1.44	1.66	0.106	10.31%
10/12/2021	0.006	1.400	1.024	0.007	0.950	0.617	0.82	1.47	1.66	0.107	10.30%
10/13/2021	0.006	1.463	1.015	0.007	0.953	0.616	0.87	1.53	1.65	0.109	10.29%
10/14/2021	0.006	1.458	1.024	0.007	0.956	0.617	0.91	1.53	1.66	0.109	10.29%
10/15/2021	0.006	1.393	1.023	0.007	0.952	0.618	0.87	1.46	1.65	0.109	10.30%
10/18/2021	0.006	1.337	1.063	0.007	0.953	0.623	0.82	1.40	1.71	0.107	10.31%
10/19/2021	0.006	1.331	1.067	0.007	0.951	0.621	0.86	1.40	1.72	0.108	10.31%
10/20/2021	0.006	1.297	1.044	0.007	0.955	0.621	0.83	1.36	1.68	0.105	10.32%
10/21/2021	0.006	1.309	1.032	0.007	0.955	0.622	0.84	1.37	1.66	0.104	10.32%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/22/2021	0.006	1.315	1.012	0.007	0.955	0.623	0.86	1.38	1.62	0.104	10.32%
10/25/2021	0.006	1.318	1.025	0.007	0.955	0.624	0.87	1.38	1.64	0.105	10.31%
10/26/2021	0.006	1.312	1.031	0.007	0.955	0.623	0.86	1.37	1.65	0.105	10.31%
10/27/2021	0.006	1.314	1.030	0.007	0.965	0.624	0.85	1.36	1.65	0.105	10.31%
10/28/2021	0.006	1.320	1.043	0.007	0.967	0.624	0.82	1.37	1.67	0.105	10.31%
10/29/2021	0.005	1.343	1.024	0.007	0.994	0.623	0.78	1.35	1.64	0.104	10.32%
11/1/2021	0.005	1.352	1.027	0.007	0.997	0.623	0.77	1.36	1.65	0.105	10.32%
11/2/2021	0.006	1.332	1.034	0.007	0.999	0.623	0.81	1.33	1.66	0.118	10.32%
11/3/2021	0.006	1.237	1.105	0.007	1.013	0.629	0.91	1.22	1.76	0.101	10.41%
11/4/2021	0.006	1.256	1.082	0.007	1.020	0.628	0.89	1.23	1.72	0.143	10.41%
11/5/2021	0.008	1.567	0.791	0.007	1.047	0.642	1.08	1.50	1.23	0.079	10.72%
11/8/2021	0.008	1.927	0.613	0.007	1.058	0.634	1.16	1.82	0.97	0.080	10.70%
11/9/2021	0.008	1.917	0.624	0.007	1.059	0.637	1.14	1.81	0.98	0.086	10.70%
11/10/2021	0.007	1.920	0.658	0.007	1.060	0.637	1.06	1.81	1.03	0.088	10.71%
11/11/2021	0.008	1.914	0.661	0.007	1.063	0.638	1.07	1.80	1.04	0.085	10.73%
11/12/2021	0.007	1.904	0.647	0.007	1.063	0.638	1.06	1.79	1.01	0.085	10.72%
11/15/2021	0.007	1.905	0.645	0.007	1.068	0.639	0.99	1.78	1.01	0.089	10.73%
11/16/2021	0.006	1.903	0.662	0.007	1.069	0.640	0.91	1.78	1.03	0.061	10.74%
11/17/2021	0.007	1.971	0.639	0.007	1.074	0.641	0.94	1.83	1.00	0.084	10.74%
11/18/2021	0.005	2.105	0.599	0.007	1.087	0.649	0.77	1.94	0.92	0.060	10.88%
11/19/2021	0.006	2.093	0.583	0.007	1.087	0.650	0.80	1.93	0.90	0.061	10.87%
11/22/2021	0.006	2.053	0.608	0.007	1.088	0.650	0.87	1.89	0.93	0.059	10.89%
11/23/2021	0.006	2.037	0.615	0.007	1.090	0.651	0.89	1.87	0.94	0.059	10.89%
11/24/2021	0.007	2.072	0.607	0.007	1.091	0.651	0.91	1.90	0.93	0.062	10.88%
11/26/2021	0.007	2.107	0.597	0.007	1.108	0.657	0.97	1.90	0.91	0.060	10.90%
11/29/2021	0.007	2.115	0.589	0.007	1.074	0.649	0.94	1.97	0.91	0.060	10.89%
11/30/2021	0.007	2.056	0.622	0.007	1.074	0.658	0.93	1.91	0.95	0.060	10.90%
12/1/2021	0.007	2.021	0.632	0.007	1.064	0.661	0.95	1.90	0.96	0.063	10.90%
12/2/2021	0.007	2.101	0.639	0.007	1.064	0.660	0.94	1.97	0.97	0.062	10.90%
12/3/2021	0.007	2.044	0.652	0.007	1.056	0.659	0.94	1.94	0.99	0.063	10.90%
12/6/2021	0.007	2.053	0.659	0.007	1.055	0.658	0.92	1.95	1.00	0.063	10.90%
12/7/2021	0.006	1.961	0.715	0.007	1.044	0.651	0.89	1.88	1.10	0.063	10.91%
12/8/2021	0.007	1.962	0.719	0.007	1.042	0.646	0.91	1.88	1.11	0.064	10.91%
12/9/2021	0.007	1.965	0.718	0.007	1.042	0.648	0.92	1.89	1.11	0.066	10.91%
12/10/2021	0.006	1.991	0.746	0.007	1.043	0.647	0.87	1.91	1.15	0.065	10.91%
12/13/2021	0.006	1.935	0.796	0.007	1.039	0.646	0.87	1.86	1.23	0.065	10.91%
12/14/2021	0.006	1.926	0.803	0.007	1.028	0.640	0.86	1.87	1.25	0.066	10.91%
12/15/2021	0.006	1.887	0.814	0.007	1.024	0.639	0.90	1.84	1.28	0.068	10.89%
12/16/2021	0.006	1.837	0.791	0.007	1.029	0.639	0.86	1.78	1.24	0.067	10.90%
12/17/2021	0.006	1.859	0.787	0.007	1.028	0.640	0.85	1.81	1.23	0.067	10.90%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/20/2021	0.006	1.884	0.757	0.007	1.016	0.629	0.82	1.85	1.20	0.074	10.90%
12/21/2021	0.005	1.984	0.756	0.007	1.016	0.632	0.75	1.95	1.20	0.076	10.93%
12/22/2021	0.006	2.144	0.722	0.007	1.007	0.633	0.83	2.13	1.14	0.071	10.96%
12/23/2021	0.006	2.119	0.736	0.007	1.003	0.631	0.84	2.11	1.17	0.071	10.96%
12/27/2021	0.006	2.115	0.735	0.007	1.003	0.631	0.83	2.11	1.16	0.072	10.96%
12/28/2021	0.006	2.175	0.697	0.007	0.992	0.626	0.86	2.19	1.11	0.072	10.96%
12/29/2021	0.006	2.208	0.678	0.007	0.995	0.629	0.86	2.22	1.08	0.072	10.96%
12/30/2021	0.006	2.213	0.660	0.007	0.995	0.630	0.86	2.22	1.05	0.071	10.96%
12/31/2021	0.006	2.209	0.661	0.007	0.995	0.629	0.85	2.22	1.05	0.071	10.96%
1/3/2022	0.006	2.224	0.649	0.007	0.996	0.630	0.88	2.23	1.03	0.073	10.96%
1/4/2022	0.007	2.241	0.654	0.007	0.994	0.629	0.92	2.25	1.04	0.075	10.94%
1/5/2022	0.006	2.217	0.649	0.007	0.995	0.624	0.90	2.23	1.04	0.074	10.94%
1/6/2022	0.007	2.139	0.585	0.007	0.993	0.621	0.94	2.15	0.94	0.071	10.95%
1/7/2022	0.007	2.153	0.600	0.007	0.994	0.624	0.95	2.17	0.96	0.071	10.95%
1/10/2022	0.007	2.157	0.602	0.007	0.996	0.625	0.96	2.16	0.96	0.068	10.97%
1/11/2022	0.007	2.154	0.603	0.007	0.996	0.624	0.96	2.16	0.97	0.068	10.97%
1/12/2022	0.007	2.155	0.601	0.007	0.995	0.623	0.98	2.17	0.96	0.068	10.97%
1/13/2022	0.006	2.116	0.636	0.007	0.974	0.609	0.79	2.17	1.04	0.074	10.76%
1/14/2022	0.006	2.045	0.732	0.007	0.973	0.613	0.86	2.10	1.19	0.075	10.74%
1/18/2022	0.006	2.063	0.723	0.007	0.976	0.613	0.84	2.11	1.18	0.079	10.74%
1/19/2022	0.005	2.068	0.681	0.007	0.969	0.607	0.71	2.13	1.12	0.076	10.68%
1/20/2022	0.005	2.138	0.660	0.007	0.971	0.607	0.77	2.20	1.09	0.081	10.67%
1/21/2022	0.005	2.184	0.657	0.007	0.969	0.608	0.73	2.25	1.08	0.079	10.68%
1/24/2022	0.005	2.184	0.639	0.007	0.961	0.609	0.71	2.27	1.05	0.081	10.67%
1/25/2022	0.004	2.250	0.558	0.007	0.957	0.608	0.63	2.35	0.92	0.079	10.62%
1/26/2022	0.004	2.163	0.662	0.007	0.946	0.604	0.54	2.29	1.10	0.083	10.52%
1/27/2022	0.003	2.269	0.682	0.007	0.953	0.603	0.49	2.38	1.13	0.087	10.50%
1/28/2022	0.004	2.321	0.678	0.007	0.954	0.602	0.52	2.43	1.13	0.089	10.49%
1/31/2022	0.003	2.457	0.603	0.007	0.964	0.603	0.43	2.55	1.00	0.094	10.47%
2/1/2022	0.003	2.389	0.623	0.007	0.963	0.602	0.40	2.48	1.04	0.091	10.46%
2/2/2022	0.000	1.724	0.671	0.006	0.822	0.512	-0.08	2.10	1.31	0.117	8.90%
2/3/2022	-0.002	1.646	0.725	0.005	0.771	0.480	-0.43	2.13	1.51	0.136	8.37%
2/4/2022	-0.001	1.742	0.785	0.005	0.735	0.461	-0.12	2.37	1.70	0.159	8.05%
2/7/2022	0.001	1.734	0.931	0.005	0.700	0.441	0.25	2.48	2.11	0.184	7.68%
2/8/2022	0.001	1.747	0.921	0.005	0.698	0.439	0.23	2.50	2.10	0.143	7.67%
2/9/2022	0.001	1.747	0.915	0.005	0.696	0.439	0.25	2.51	2.09	0.144	7.66%
2/10/2022	0.001	1.742	0.912	0.005	0.693	0.437	0.25	2.51	2.09	0.139	7.65%
2/11/2022	0.002	1.668	0.880	0.005	0.695	0.439	0.37	2.40	2.01	0.130	7.69%
2/14/2022	0.002	1.681	0.883	0.005	0.688	0.438	0.42	2.44	2.02	0.133	7.68%
2/15/2022	0.002	1.677	0.893	0.005	0.687	0.436	0.40	2.44	2.05	0.129	7.66%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/16/2022	0.002	1.648	0.882	0.005	0.687	0.436	0.37	2.40	2.02	0.128	7.67%
2/17/2022	0.002	1.647	0.890	0.005	0.686	0.436	0.35	2.40	2.04	0.131	7.67%
2/18/2022	0.001	1.679	0.873	0.005	0.682	0.436	0.26	2.46	2.00	0.130	7.65%
2/22/2022	0.001	1.669	0.863	0.005	0.682	0.437	0.30	2.45	1.97	0.133	7.65%
2/23/2022	0.001	1.720	0.848	0.005	0.680	0.439	0.24	2.53	1.93	0.133	7.67%
2/24/2022	0.001	1.754	0.850	0.005	0.679	0.439	0.22	2.58	1.94	0.137	7.67%
2/25/2022	0.001	1.815	0.859	0.005	0.686	0.439	0.24	2.65	1.96	0.135	7.67%
2/28/2022	0.001	1.751	0.872	0.005	0.680	0.439	0.24	2.57	1.99	0.134	7.67%
3/1/2022	0.001	1.791	0.866	0.005	0.688	0.439	0.27	2.60	1.97	0.136	7.67%
3/2/2022	0.001	1.799	0.887	0.005	0.689	0.440	0.22	2.61	2.02	0.134	7.67%
3/3/2022	0.001	1.768	0.895	0.005	0.684	0.443	0.20	2.59	2.02	0.136	7.68%
3/4/2022	0.001	1.754	0.901	0.005	0.686	0.443	0.18	2.56	2.03	0.131	7.68%
3/7/2022	0.001	1.791	0.909	0.005	0.686	0.443	0.27	2.61	2.05	0.135	7.67%
3/8/2022	0.001	1.795	0.935	0.005	0.667	0.441	0.22	2.69	2.12	0.137	7.66%
3/9/2022	0.001	1.785	0.941	0.005	0.665	0.440	0.24	2.68	2.14	0.131	7.65%
3/10/2022	0.001	1.771	0.930	0.005	0.662	0.440	0.23	2.68	2.12	0.131	7.65%
3/11/2022	0.001	1.770	0.928	0.005	0.662	0.441	0.25	2.67	2.10	0.130	7.65%
3/14/2022	0.001	1.778	0.926	0.005	0.661	0.441	0.26	2.69	2.10	0.135	7.65%
3/15/2022	0.001	1.814	0.940	0.005	0.661	0.443	0.24	2.74	2.12	0.135	7.66%
3/16/2022	0.001	1.831	0.938	0.005	0.657	0.443	0.25	2.79	2.12	0.137	7.66%
3/17/2022	0.000	1.815	0.909	0.005	0.648	0.437	0.10	2.80	2.08	0.139	7.58%
3/18/2022	0.001	1.800	0.888	0.005	0.648	0.438	0.14	2.78	2.03	0.135	7.57%
3/21/2022	0.000	1.789	0.878	0.005	0.649	0.440	0.10	2.76	2.00	0.134	7.58%
3/22/2022	0.001	1.781	0.899	0.005	0.648	0.439	0.14	2.75	2.05	0.135	7.57%
3/23/2022	0.001	1.777	0.891	0.005	0.646	0.437	0.12	2.75	2.04	0.137	7.55%
3/24/2022	0.001	1.767	0.851	0.005	0.647	0.440	0.20	2.73	1.94	0.133	7.56%
3/25/2022	0.001	1.763	0.851	0.005	0.646	0.440	0.19	2.73	1.93	0.133	7.56%
3/28/2022	0.001	1.851	0.823	0.005	0.646	0.437	0.26	2.87	1.88	0.137	7.54%
3/29/2022	0.001	1.847	0.816	0.005	0.646	0.438	0.26	2.86	1.86	0.136	7.54%
3/30/2022	0.001	1.837	0.790	0.005	0.646	0.437	0.23	2.84	1.81	0.135	7.54%
3/31/2022	0.001	1.836	0.799	0.005	0.647	0.440	0.22	2.84	1.82	0.135	7.54%
4/1/2022	0.001	1.837	0.796	0.005	0.644	0.439	0.21	2.85	1.82	0.134	7.54%
4/4/2022	0.001	1.886	0.780	0.005	0.644	0.435	0.26	2.93	1.79	0.137	7.53%
4/5/2022	0.001	1.890	0.770	0.005	0.643	0.435	0.28	2.94	1.77	0.159	7.53%
4/6/2022	0.001	1.998	0.774	0.005	0.649	0.441	0.15	3.08	1.75	0.143	7.60%
4/7/2022	0.000	2.042	0.752	0.005	0.646	0.440	0.10	3.16	1.71	0.142	7.61%
4/8/2022	0.000	2.058	0.735	0.005	0.648	0.441	0.07	3.18	1.67	0.141	7.61%
4/11/2022	0.001	2.112	0.675	0.005	0.644	0.439	0.16	3.28	1.54	0.142	7.57%
4/12/2022	0.001	2.105	0.683	0.005	0.644	0.440	0.18	3.27	1.55	0.143	7.57%
4/13/2022	0.001	2.093	0.691	0.005	0.646	0.443	0.21	3.24	1.56	0.143	7.57%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
4/14/2022	0.001	2.106	0.688	0.005	0.646	0.441	0.23	3.26	1.56	0.144	7.56%
4/18/2022	0.001	2.105	0.688	0.005	0.645	0.441	0.25	3.26	1.56	0.145	7.56%
4/19/2022	0.001	2.095	0.699	0.005	0.643	0.436	0.24	3.26	1.60	0.152	7.56%
4/20/2022	0.001	1.927	0.745	0.005	0.647	0.440	0.15	2.98	1.69	0.140	7.63%
4/21/2022	0.000	1.944	0.731	0.005	0.647	0.441	0.06	3.00	1.66	0.139	7.64%
4/22/2022	0.000	1.993	0.732	0.005	0.647	0.441	-0.02	3.08	1.66	0.139	7.64%
4/25/2022	0.000	1.832	0.755	0.005	0.644	0.441	0.01	2.85	1.71	0.135	7.65%
4/26/2022	0.000	1.837	0.757	0.005	0.645	0.443	0.03	2.85	1.71	0.133	7.65%
4/27/2022	0.000	1.831	0.764	0.005	0.645	0.444	-0.02	2.84	1.72	0.130	7.66%
4/28/2022	0.000	1.813	0.781	0.005	0.644	0.443	-0.09	2.81	1.76	0.130	7.65%
4/29/2022	-0.001	1.728	0.824	0.005	0.634	0.441	-0.13	2.72	1.87	0.129	7.66%
5/2/2022	0.000	1.604	0.848	0.005	0.624	0.442	-0.06	2.57	1.92	0.125	7.67%
5/3/2022	0.000	1.616	0.836	0.005	0.623	0.440	-0.01	2.60	1.90	0.126	7.65%
5/4/2022	0.000	1.618	0.833	0.005	0.623	0.444	-0.01	2.60	1.88	0.126	7.65%
5/5/2022	0.000	1.540	0.854	0.005	0.616	0.444	-0.07	2.50	1.92	0.124	7.66%
5/6/2022	0.000	1.544	0.851	0.005	0.618	0.445	-0.06	2.50	1.91	0.121	7.67%
5/9/2022	0.000	1.551	0.839	0.005	0.615	0.438	-0.06	2.52	1.92	0.126	7.66%
5/10/2022	0.000	1.509	0.810	0.005	0.612	0.436	0.00	2.46	1.86	0.124	7.66%
5/11/2022	0.000	1.522	0.802	0.005	0.615	0.438	-0.02	2.47	1.83	0.130	7.67%
5/12/2022	0.000	1.520	0.855	0.005	0.624	0.437	-0.07	2.44	1.95	0.126	7.69%
5/13/2022	0.000	1.527	0.850	0.005	0.623	0.432	-0.07	2.45	1.97	0.130	7.69%
5/16/2022	0.000	1.525	0.849	0.005	0.621	0.432	-0.08	2.46	1.96	0.130	7.69%
5/17/2022	0.000	1.500	0.864	0.005	0.620	0.432	-0.07	2.42	2.00	0.131	7.69%
5/18/2022	-0.001	1.548	0.855	0.005	0.620	0.431	-0.10	2.50	1.98	0.131	7.68%
5/19/2022	0.000	1.447	0.879	0.005	0.608	0.431	-0.08	2.38	2.04	0.132	7.69%
5/20/2022	0.000	1.413	0.913	0.005	0.608	0.431	-0.02	2.32	2.12	0.130	7.70%
5/23/2022	0.000	1.399	0.927	0.005	0.608	0.431	0.00	2.30	2.15	0.133	7.70%
5/24/2022	0.000	1.473	0.894	0.005	0.607	0.432	0.08	2.42	2.07	0.135	7.71%
5/25/2022	0.000	1.483	0.903	0.005	0.608	0.432	0.04	2.44	2.09	0.136	7.71%
5/26/2022	0.000	1.500	0.892	0.005	0.606	0.432	0.02	2.47	2.07	0.135	7.71%
5/27/2022	-0.001	1.420	0.916	0.005	0.601	0.431	-0.10	2.36	2.12	0.132	7.71%
5/31/2022	0.000	1.408	0.918	0.005	0.599	0.431	-0.09	2.35	2.13	0.142	7.71%
6/1/2022	0.000	1.430	0.851	0.005	0.604	0.433	0.00	2.37	1.96	0.134	7.77%
6/2/2022	-0.001	1.446	0.857	0.005	0.606	0.435	-0.14	2.39	1.97	0.127	7.80%
6/3/2022	-0.001	1.452	0.855	0.005	0.601	0.433	-0.17	2.42	1.97	0.128	7.80%
6/6/2022	-0.001	1.374	0.897	0.005	0.596	0.431	-0.12	2.31	2.08	0.125	7.81%
6/7/2022	-0.001	1.374	0.892	0.005	0.599	0.437	-0.15	2.30	2.04	0.124	7.81%
6/8/2022	-0.001	1.373	0.891	0.005	0.598	0.435	-0.17	2.29	2.05	0.124	7.81%
6/9/2022	-0.001	1.355	0.911	0.005	0.597	0.435	-0.14	2.27	2.09	0.128	7.80%
6/10/2022	-0.001	1.354	0.929	0.005	0.597	0.435	-0.14	2.27	2.13	0.130	7.80%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/13/2022	-0.001	1.195	0.964	0.005	0.593	0.435	-0.15	2.02	2.22	0.141	7.78%
6/14/2022	-0.001	1.315	0.966	0.005	0.586	0.435	-0.23	2.24	2.22	0.141	7.80%
6/15/2022	-0.001	1.301	0.972	0.005	0.587	0.437	-0.14	2.22	2.22	0.142	7.81%
6/16/2022	-0.001	1.315	0.996	0.005	0.585	0.434	-0.19	2.25	2.29	0.143	7.78%
6/17/2022	-0.001	1.238	1.022	0.005	0.577	0.434	-0.13	2.15	2.35	0.142	7.78%
6/21/2022	-0.001	1.281	0.985	0.005	0.574	0.426	-0.18	2.23	2.31	0.142	7.78%
6/22/2022	-0.002	1.201	0.991	0.005	0.573	0.426	-0.31	2.10	2.33	0.143	7.77%
6/23/2022	-0.001	1.156	1.033	0.005	0.572	0.424	-0.24	2.02	2.44	0.134	7.77%
6/24/2022	-0.001	1.155	1.035	0.005	0.570	0.418	-0.24	2.03	2.48	0.134	7.77%
6/27/2022	-0.002	1.089	1.047	0.005	0.564	0.418	-0.31	1.93	2.50	0.131	7.78%
6/28/2022	-0.001	1.085	1.055	0.005	0.564	0.418	-0.26	1.93	2.52	0.132	7.77%
6/29/2022	-0.002	1.086	1.051	0.005	0.562	0.417	-0.33	1.93	2.52	0.133	7.75%
6/30/2022	-0.001	1.083	1.053	0.005	0.561	0.416	-0.30	1.93	2.53	0.134	7.75%
7/1/2022	-0.002	1.095	1.049	0.005	0.561	0.416	-0.35	1.95	2.52	0.135	7.75%
7/5/2022	-0.002	1.100	1.012	0.005	0.562	0.417	-0.45	1.96	2.43	0.129	7.77%
7/6/2022	-0.002	1.105	1.003	0.005	0.562	0.415	-0.48	1.97	2.42	0.132	7.77%
7/7/2022	-0.003	1.095	1.015	0.005	0.563	0.416	-0.59	1.95	2.44	0.129	7.78%
7/8/2022	-0.003	1.067	1.033	0.005	0.563	0.417	-0.65	1.90	2.48	0.130	7.78%
7/11/2022	-0.004	1.133	0.988	0.005	0.563	0.416	-0.76	2.01	2.37	0.131	7.75%
7/12/2022	-0.003	1.189	0.976	0.005	0.561	0.414	-0.66	2.12	2.36	0.136	7.71%
7/13/2022	-0.003	1.174	0.986	0.005	0.560	0.414	-0.69	2.10	2.38	0.136	7.70%
7/14/2022	-0.004	1.172	0.997	0.005	0.559	0.413	-0.74	2.10	2.41	0.137	7.69%
7/15/2022	-0.003	1.187	0.976	0.005	0.558	0.413	-0.68	2.12	2.36	0.137	7.69%
7/18/2022	-0.003	1.151	0.994	0.005	0.553	0.409	-0.56	2.08	2.43	0.139	7.62%
7/19/2022	-0.003	1.137	0.999	0.005	0.555	0.409	-0.52	2.05	2.44	0.140	7.62%
7/20/2022	-0.003	1.162	0.972	0.005	0.558	0.412	-0.58	2.08	2.36	0.140	7.62%
7/21/2022	-0.003	1.121	0.980	0.005	0.557	0.411	-0.65	2.01	2.38	0.137	7.61%
7/22/2022	-0.004	1.026	1.007	0.005	0.545	0.402	-0.90	1.88	2.50	0.139	7.44%
7/25/2022	-0.005	1.023	1.006	0.005	0.544	0.400	-0.96	1.88	2.51	0.141	7.43%
7/26/2022	-0.005	1.032	1.003	0.005	0.544	0.401	-0.98	1.90	2.50	0.140	7.43%
7/27/2022	-0.005	1.024	1.006	0.005	0.544	0.402	-0.96	1.88	2.50	0.150	7.43%
7/28/2022	-0.006	0.845	1.084	0.005	0.544	0.405	-1.17	1.55	2.67	0.136	7.50%
7/29/2022	-0.006	0.785	1.111	0.005	0.545	0.409	-1.27	1.44	2.71	0.128	7.53%
8/1/2022	-0.006	0.761	1.125	0.005	0.540	0.407	-1.30	1.41	2.77	0.099	7.51%
8/2/2022	-0.004	0.696	1.130	0.005	0.513	0.385	-0.91	1.36	2.93	0.105	7.14%
8/3/2022	-0.004	0.672	1.149	0.005	0.509	0.382	-0.98	1.32	3.01	0.104	7.09%
8/4/2022	-0.004	0.672	1.149	0.005	0.509	0.382	-0.98	1.32	3.01	0.104	7.09%
8/5/2022	-0.005	0.758	1.063	0.005	0.510	0.382	-1.11	1.49	2.79	0.097	7.12%
8/8/2022	-0.006	0.772	1.025	0.005	0.506	0.379	-1.22	1.53	2.71	0.102	7.07%
8/9/2022	-0.005	0.766	1.036	0.005	0.509	0.381	-1.10	1.51	2.72	0.095	7.10%



## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/10/2022	-0.005	0.823	0.966	0.005	0.511	0.385	-1.11	1.61	2.51	0.090	7.10%
8/11/2022	-0.005	0.769	0.990	0.005	0.511	0.386	-1.20	1.50	2.57	0.089	7.10%
8/12/2022	-0.005	0.742	1.016	0.005	0.515	0.391	-1.21	1.44	2.60	0.090	7.10%
8/15/2022	-0.006	0.762	0.994	0.005	0.512	0.389	-1.29	1.49	2.55	0.090	7.07%
8/16/2022	-0.006	0.770	0.984	0.005	0.511	0.388	-1.34	1.51	2.53	0.089	7.07%
8/17/2022	-0.006	0.789	0.965	0.005	0.510	0.388	-1.30	1.54	2.49	0.127	7.07%
8/18/2022	-0.004	0.697	0.971	0.005	0.528	0.401	-0.92	1.32	2.42	0.077	7.25%
8/19/2022	-0.004	0.720	0.958	0.005	0.527	0.400	-0.92	1.37	2.39	0.077	7.25%
8/22/2022	-0.004	0.738	0.944	0.005	0.527	0.403	-0.92	1.40	2.34	0.077	7.25%
8/23/2022	-0.004	0.741	0.940	0.005	0.525	0.404	-0.93	1.41	2.33	0.077	7.25%
8/24/2022	-0.005	0.767	0.892	0.005	0.525	0.406	-0.98	1.46	2.20	0.079	7.23%
8/25/2022	-0.004	0.742	0.925	0.005	0.527	0.406	-0.92	1.41	2.28	0.074	7.25%
8/26/2022	-0.003	0.713	0.971	0.004	0.494	0.382	-0.63	1.44	2.54	0.094	6.83%
8/29/2022	-0.002	0.601	0.963	0.004	0.493	0.383	-0.41	1.22	2.52	0.090	6.84%
8/30/2022	-0.001	0.709	0.922	0.004	0.487	0.378	-0.32	1.46	2.44	0.088	6.75%
8/31/2022	-0.001	0.720	0.912	0.004	0.485	0.377	-0.22	1.49	2.42	0.089	6.73%
9/1/2022	-0.001	0.743	0.892	0.004	0.483	0.376	-0.30	1.54	2.37	0.089	6.72%
9/2/2022	-0.001	0.740	0.901	0.004	0.480	0.372	-0.23	1.54	2.42	0.091	6.69%
9/6/2022	-0.001	0.744	0.894	0.004	0.480	0.372	-0.27	1.55	2.40	0.105	6.68%
9/7/2022	0.000	0.783	0.835	0.004	0.484	0.375	-0.06	1.62	2.23	0.086	6.74%
9/8/2022	0.000	0.776	0.836	0.004	0.483	0.373	-0.02	1.61	2.24	0.086	6.74%
9/9/2022	0.000	0.790	0.816	0.004	0.482	0.370	-0.03	1.64	2.20	0.093	6.74%
9/12/2022	0.000	0.853	0.788	0.004	0.481	0.370	-0.02	1.77	2.13	0.088	6.75%
9/13/2022	0.000	0.863	0.784	0.004	0.480	0.370	-0.04	1.80	2.12	0.093	6.74%
9/14/2022	0.000	0.899	0.759	0.004	0.477	0.370	0.01	1.89	2.05	0.096	6.73%
9/15/2022	0.001	0.866	0.782	0.004	0.475	0.369	0.17	1.83	2.12	0.095	6.70%
9/16/2022	0.000	0.883	0.766	0.004	0.473	0.368	0.10	1.87	2.08	0.093	6.70%
9/19/2022	0.000	0.883	0.767	0.004	0.473	0.368	0.10	1.87	2.08	0.093	6.70%
9/20/2022	0.000	0.925	0.736	0.004	0.471	0.366	-0.02	1.96	2.01	0.138	6.67%
9/21/2022	0.001	0.822	0.780	0.004	0.485	0.378	0.20	1.69	2.07	0.083	6.88%
9/22/2022	0.001	0.843	0.756	0.004	0.484	0.377	0.12	1.74	2.01	0.144	6.86%
9/23/2022	0.002	0.714	0.814	0.005	0.505	0.393	0.42	1.41	2.07	0.094	7.16%
9/26/2022	0.001	0.693	0.802	0.005	0.504	0.392	0.31	1.38	2.05	0.092	7.13%
9/27/2022	0.002	0.659	0.811	0.005	0.506	0.395	0.36	1.30	2.06	0.086	7.15%
9/28/2022	0.001	0.637	0.835	0.005	0.503	0.392	0.27	1.27	2.13	0.090	7.12%
9/29/2022	0.001	0.650	0.764	0.005	0.505	0.391	0.18	1.29	1.95	0.081	7.15%
9/30/2022	0.001	0.650	0.760	0.005	0.503	0.390	0.23	1.29	1.95	0.081	7.14%
10/3/2022	0.001	0.663	0.752	0.005	0.503	0.391	0.21	1.32	1.93	0.081	7.15%
10/4/2022	0.001	0.654	0.746	0.005	0.505	0.395	0.19	1.29	1.89	0.080	7.15%
10/5/2022	0.001	0.621	0.728	0.005	0.502	0.394	0.23	1.24	1.85	0.077	7.13%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/6/2022	0.001	0.606	0.736	0.005	0.502	0.394	0.17	1.21	1.87	0.077	7.13%
10/7/2022	0.001	0.631	0.707	0.005	0.502	0.394	0.28	1.26	1.79	0.078	7.11%
10/10/2022	0.001	0.644	0.706	0.005	0.500	0.395	0.26	1.29	1.79	0.083	7.11%
10/11/2022	0.001	0.663	0.699	0.005	0.501	0.396	0.21	1.32	1.77	0.078	7.13%
10/12/2022	0.001	0.673	0.692	0.005	0.500	0.395	0.20	1.34	1.75	0.078	7.13%
10/13/2022	0.001	0.672	0.692	0.005	0.500	0.394	0.19	1.34	1.75	0.079	7.13%
10/14/2022	0.001	0.670	0.692	0.005	0.498	0.394	0.15	1.35	1.76	0.079	7.13%
10/17/2022	0.001	0.686	0.690	0.005	0.495	0.393	0.20	1.38	1.76	0.080	7.12%
10/18/2022	0.001	0.687	0.670	0.005	0.494	0.393	0.22	1.39	1.70	0.079	7.11%
10/19/2022	0.001	0.659	0.689	0.005	0.494	0.395	0.17	1.33	1.75	0.080	7.11%
10/20/2022	0.001	0.649	0.714	0.005	0.491	0.390	0.22	1.32	1.83	0.081	7.10%
10/21/2022	0.001	0.649	0.712	0.005	0.492	0.390	0.27	1.32	1.82	0.082	7.10%
10/24/2022	0.001	0.648	0.713	0.005	0.491	0.390	0.27	1.32	1.82	0.082	7.10%
10/25/2022	0.001	0.642	0.711	0.005	0.491	0.391	0.25	1.31	1.82	0.081	7.11%
10/26/2022	0.001	0.637	0.705	0.005	0.490	0.391	0.20	1.30	1.80	0.081	7.10%
10/27/2022	0.001	0.620	0.720	0.005	0.488	0.389	0.24	1.27	1.85	0.081	7.10%
10/28/2022	0.001	0.625	0.709	0.005	0.489	0.390	0.27	1.28	1.82	0.078	7.11%
10/31/2022	0.001	0.623	0.722	0.005	0.489	0.388	0.31	1.27	1.86	0.079	7.11%
11/1/2022	0.002	0.627	0.718	0.005	0.489	0.388	0.33	1.28	1.85	0.079	7.11%
11/2/2022	0.001	0.643	0.696	0.005	0.488	0.387	0.27	1.32	1.80	0.078	7.10%
11/3/2022	0.000	0.655	0.663	0.004	0.475	0.379	0.08	1.38	1.75	0.080	6.96%
11/4/2022	0.001	0.649	0.675	0.004	0.476	0.380	0.12	1.37	1.78	0.078	6.97%
11/7/2022	-0.001	0.395	0.920	0.004	0.440	0.353	-0.25	0.90	2.61	0.104	6.44%
11/8/2022	-0.001	0.297	1.013	0.004	0.443	0.357	-0.35	0.67	2.84	0.106	6.42%
11/9/2022	-0.001	0.298	1.014	0.004	0.443	0.357	-0.32	0.67	2.84	0.106	6.42%
11/10/2022	-0.001	0.314	0.987	0.004	0.438	0.354	-0.19	0.72	2.79	0.106	6.37%
11/11/2022	-0.001	0.257	1.006	0.004	0.428	0.352	-0.24	0.60	2.85	0.101	6.37%
11/14/2022	-0.001	0.278	0.995	0.004	0.427	0.353	-0.21	0.65	2.82	0.104	6.37%
11/15/2022	0.000	0.249	1.018	0.004	0.428	0.353	-0.07	0.58	2.88	0.098	6.39%
11/16/2022	0.000	0.253	1.007	0.004	0.424	0.350	0.02	0.60	2.87	0.113	6.35%
11/17/2022	0.000	0.271	1.009	0.004	0.428	0.353	-0.12	0.63	2.86	0.098	6.40%
11/18/2022	0.001	0.228	1.035	0.004	0.412	0.340	0.15	0.55	3.04	0.109	6.16%
11/21/2022	0.000	0.224	1.039	0.004	0.412	0.341	0.11	0.54	3.05	0.106	6.17%
11/22/2022	0.000	0.248	1.019	0.004	0.411	0.340	0.01	0.60	3.00	0.106	6.14%
11/23/2022	0.000	0.248	1.019	0.004	0.412	0.340	0.01	0.60	2.99	0.103	6.15%
11/25/2022	0.000	0.258	1.011	0.004	0.411	0.340	0.03	0.63	2.98	0.104	6.16%
11/28/2022	0.000	0.249	1.015	0.004	0.410	0.338	-0.03	0.61	3.00	0.104	6.13%
11/29/2022	0.000	0.218	1.038	0.004	0.414	0.341	-0.01	0.53	3.04	0.104	6.13%
11/30/2022	0.000	0.229	1.032	0.004	0.414	0.341	0.04	0.55	3.02	0.104	6.12%
12/1/2022	0.000	0.214	1.030	0.004	0.415	0.342	0.01	0.51	3.02	0.103	6.13%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/2/2022	0.000	0.214	1.011	0.004	0.415	0.341	0.06	0.52	2.96	0.102	6.11%
12/5/2022	0.000	0.210	1.019	0.004	0.416	0.341	0.11	0.51	2.99	0.104	6.12%
12/6/2022	0.000	0.224	1.012	0.004	0.416	0.342	0.11	0.54	2.96	0.101	6.12%
12/7/2022	0.001	0.252	0.985	0.004	0.420	0.346	0.16	0.60	2.85	0.108	6.12%
12/8/2022	0.001	0.227	0.994	0.004	0.421	0.348	0.20	0.54	2.86	0.098	6.13%
12/9/2022	0.001	0.233	0.988	0.004	0.421	0.348	0.20	0.55	2.84	0.097	6.13%
12/12/2022	0.001	0.253	0.951	0.004	0.420	0.347	0.29	0.60	2.74	0.100	6.12%
12/13/2022	0.002	0.299	0.925	0.004	0.422	0.350	0.40	0.71	2.64	0.096	6.14%
12/14/2022	0.002	0.301	0.928	0.004	0.426	0.353	0.43	0.71	2.63	0.095	6.14%
12/15/2022	0.001	0.319	0.916	0.004	0.425	0.352	0.37	0.75	2.61	0.106	6.13%
12/16/2022	0.001	0.370	0.917	0.004	0.424	0.353	0.34	0.87	2.60	0.101	6.15%
12/19/2022	0.001	0.368	0.915	0.004	0.424	0.353	0.37	0.87	2.60	0.101	6.14%
12/20/2022	0.002	0.335	0.946	0.004	0.429	0.358	0.40	0.78	2.65	0.102	6.14%
12/21/2022	0.002	0.296	0.951	0.004	0.424	0.352	0.54	0.70	2.70	0.102	6.06%
12/22/2022	0.001	0.160	1.019	0.004	0.420	0.348	0.32	0.38	2.93	0.110	5.98%
12/23/2022	0.001	0.231	0.973	0.004	0.422	0.351	0.22	0.55	2.77	0.101	6.02%
12/27/2022	0.001	0.230	0.973	0.004	0.423	0.351	0.21	0.54	2.77	0.106	6.03%
12/28/2022	0.000	0.110	1.086	0.004	0.427	0.354	0.05	0.26	3.07	0.102	6.03%
12/29/2022	0.000	0.129	1.070	0.004	0.426	0.353	0.07	0.30	3.03	0.103	6.03%
12/30/2022	0.000	0.129	1.076	0.004	0.425	0.353	0.12	0.30	3.05	0.104	6.02%
1/3/2023	0.001	0.128	1.077	0.004	0.425	0.353	0.13	0.30	3.05	0.107	6.02%
1/4/2023	0.000	0.120	1.089	0.004	0.426	0.353	0.06	0.28	3.08	0.109	6.03%
1/5/2023	0.000	0.119	1.090	0.004	0.425	0.353	0.04	0.28	3.09	0.105	6.02%
1/6/2023	0.000	0.106	1.108	0.004	0.426	0.355	-0.02	0.25	3.12	0.106	6.02%
1/9/2023	-0.001	0.061	1.168	0.004	0.423	0.356	-0.15	0.14	3.28	0.109	6.00%
1/10/2023	0.000	0.092	1.137	0.004	0.420	0.352	-0.10	0.22	3.23	0.114	6.01%
1/11/2023	0.000	0.079	1.159	0.004	0.420	0.352	-0.04	0.19	3.30	0.128	6.01%
1/12/2023	0.000	0.142	1.124	0.004	0.423	0.355	0.10	0.34	3.16	0.114	6.06%
1/13/2023	0.000	0.145	1.111	0.004	0.424	0.356	0.03	0.34	3.12	0.110	6.07%
1/17/2023	0.000	0.149	1.106	0.004	0.426	0.357	0.03	0.35	3.09	0.110	6.07%
1/18/2023	0.000	0.151	1.095	0.004	0.426	0.358	0.08	0.35	3.06	0.108	6.07%
1/19/2023	0.000	0.150	1.096	0.004	0.425	0.358	0.09	0.35	3.06	0.109	6.07%
1/20/2023	0.000	0.171	1.057	0.004	0.425	0.360	0.13	0.40	2.93	0.105	6.06%
1/23/2023	0.001	0.195	1.046	0.004	0.424	0.360	0.17	0.46	2.90	0.105	6.07%
1/24/2023	0.001	0.196	1.035	0.004	0.422	0.359	0.29	0.47	2.88	0.141	6.05%
1/25/2023	0.001	0.192	1.035	0.004	0.424	0.360	0.30	0.45	2.88	0.141	6.06%
1/26/2023	0.001	0.195	1.026	0.004	0.424	0.360	0.15	0.46	2.85	0.136	6.06%
1/27/2023	0.001	0.204	1.025	0.004	0.422	0.359	0.13	0.48	2.85	0.137	6.06%
1/30/2023	0.001	0.211	1.020	0.004	0.423	0.360	0.17	0.50	2.84	0.139	6.06%
1/31/2023	0.001	0.221	1.016	0.004	0.423	0.361	0.16	0.52	2.82	0.137	6.06%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/1/2023	0.001	0.225	1.008	0.004	0.422	0.361	0.15	0.53	2.79	0.135	6.06%
2/2/2023	0.000	0.228	0.977	0.004	0.420	0.360	0.11	0.54	2.72	0.137	6.05%
2/3/2023	0.001	0.288	0.932	0.004	0.420	0.360	0.18	0.69	2.59	0.129	6.07%
2/6/2023	0.001	0.291	0.932	0.004	0.421	0.362	0.16	0.69	2.57	0.130	6.07%
2/7/2023	0.000	0.302	0.931	0.004	0.422	0.362	0.11	0.72	2.57	0.129	6.07%
2/8/2023	0.000	0.291	0.935	0.004	0.420	0.361	0.06	0.69	2.59	0.129	6.07%
2/9/2023	0.000	0.285	0.939	0.004	0.421	0.361	0.10	0.68	2.60	0.130	6.06%
2/10/2023	0.000	0.294	0.934	0.004	0.421	0.361	0.07	0.70	2.59	0.129	6.07%
2/13/2023	0.000	0.295	0.928	0.004	0.421	0.362	0.03	0.70	2.56	0.129	6.07%
2/14/2023	-0.001	0.283	0.963	0.004	0.419	0.361	-0.14	0.67	2.67	0.132	6.04%
2/15/2023	-0.001	0.266	0.971	0.004	0.421	0.361	-0.15	0.63	2.69	0.131	6.04%
2/16/2023	0.000	0.281	0.954	0.004	0.421	0.362	-0.10	0.67	2.63	0.130	6.04%
2/17/2023	0.000	0.279	0.959	0.004	0.421	0.363	-0.07	0.66	2.64	0.130	6.04%
2/21/2023	0.000	0.273	0.965	0.004	0.420	0.362	-0.05	0.65	2.67	0.134	6.04%
2/22/2023	0.000	0.273	0.960	0.004	0.419	0.362	-0.04	0.65	2.66	0.130	6.04%
2/23/2023	0.000	0.273	0.964	0.004	0.419	0.362	-0.06	0.65	2.67	0.130	6.04%
2/24/2023	0.000	0.248	0.974	0.004	0.418	0.360	0.04	0.59	2.71	0.131	6.01%
2/27/2023	0.000	0.237	0.965	0.004	0.417	0.359	0.10	0.57	2.69	0.129	6.00%
2/28/2023	0.000	0.231	0.948	0.004	0.416	0.358	0.02	0.55	2.65	0.126	5.99%
3/1/2023	0.000	0.235	0.947	0.004	0.418	0.359	0.03	0.56	2.64	0.122	6.00%
3/2/2023	0.000	0.232	0.950	0.004	0.418	0.359	0.03	0.56	2.65	0.123	6.00%
3/3/2023	0.000	0.238	0.946	0.004	0.416	0.357	0.05	0.57	2.65	0.125	5.99%
3/6/2023	0.000	0.246	0.945	0.004	0.418	0.358	0.07	0.59	2.64	0.124	5.99%
3/7/2023	0.001	0.258	0.920	0.004	0.416	0.357	0.16	0.62	2.58	0.125	5.97%
3/8/2023	0.000	0.267	0.922	0.004	0.416	0.357	0.11	0.64	2.58	0.124	5.97%
3/9/2023	0.001	0.212	0.951	0.004	0.420	0.358	0.16	0.50	2.66	0.123	5.96%
3/10/2023	0.001	0.212	0.946	0.004	0.420	0.358	0.16	0.50	2.64	0.123	5.96%
3/13/2023	0.001	0.207	0.942	0.004	0.421	0.359	0.14	0.49	2.62	0.118	5.98%
3/14/2023	0.000	0.203	0.948	0.004	0.417	0.354	0.12	0.49	2.68	0.118	5.98%
3/15/2023	0.001	0.200	0.942	0.004	0.416	0.354	0.16	0.48	2.67	0.117	5.97%
3/16/2023	0.001	0.185	0.939	0.004	0.414	0.352	0.26	0.45	2.67	0.118	5.95%
3/17/2023	0.001	0.170	0.941	0.004	0.413	0.351	0.22	0.41	2.68	0.116	5.94%
3/20/2023	0.001	0.168	0.928	0.004	0.413	0.353	0.19	0.41	2.63	0.109	5.95%
3/21/2023	0.001	0.166	0.917	0.004	0.413	0.353	0.14	0.40	2.60	0.107	5.95%
3/22/2023	0.001	0.155	0.929	0.004	0.411	0.352	0.14	0.38	2.64	0.114	5.95%
3/23/2023	0.000	0.167	0.940	0.004	0.413	0.354	0.08	0.40	2.66	0.109	5.96%
3/24/2023	0.000	0.165	0.943	0.004	0.412	0.354	0.09	0.40	2.67	0.109	5.96%
3/27/2023	0.000	0.161	0.960	0.004	0.412	0.354	0.04	0.39	2.71	0.111	5.96%
3/28/2023	0.000	0.158	0.959	0.004	0.412	0.354	0.02	0.38	2.71	0.111	5.96%
3/29/2023	0.000	0.161	0.957	0.004	0.414	0.356	-0.01	0.39	2.69	0.110	5.96%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/30/2023	0.000	0.162	0.956	0.004	0.414	0.356	0.00	0.39	2.69	0.110	5.96%
3/31/2023	0.000	0.165	0.966	0.004	0.413	0.356	0.05	0.40	2.71	0.111	5.96%
4/3/2023	0.000	0.163	0.960	0.004	0.412	0.356	0.06	0.40	2.69	0.110	5.95%
4/4/2023	0.000	0.145	0.970	0.004	0.413	0.357	0.09	0.35	2.72	0.110	5.95%
4/5/2023	0.000	0.144	0.972	0.004	0.415	0.359	0.09	0.35	2.71	0.110	5.95%
4/6/2023	0.000	0.149	0.967	0.004	0.414	0.358	0.08	0.36	2.70	0.110	5.95%
4/10/2023	0.001	0.117	0.938	0.004	0.405	0.350	0.29	0.29	2.68	0.112	5.82%
4/11/2023	0.001	0.064	0.978	0.004	0.405	0.350	0.33	0.16	2.80	0.112	5.80%
4/12/2023	0.001	0.058	0.989	0.004	0.404	0.349	0.39	0.14	2.83	0.114	5.80%
4/13/2023	0.002	0.058	0.988	0.004	0.404	0.349	0.41	0.14	2.83	0.115	5.79%
4/14/2023	0.002	0.057	0.985	0.004	0.404	0.349	0.44	0.14	2.82	0.114	5.79%
4/17/2023	0.002	0.056	0.987	0.004	0.404	0.349	0.42	0.14	2.83	0.117	5.79%
4/18/2023	0.002	0.051	0.997	0.004	0.405	0.350	0.47	0.13	2.84	0.114	5.80%
4/19/2023	0.002	0.047	0.997	0.004	0.404	0.350	0.48	0.12	2.85	0.114	5.80%
4/20/2023	0.002	0.059	0.982	0.004	0.407	0.355	0.47	0.15	2.77	0.113	5.80%
4/21/2023	0.002	0.131	0.953	0.004	0.404	0.352	0.59	0.32	2.71	0.118	5.74%
4/24/2023	0.003	0.122	0.962	0.004	0.401	0.348	0.70	0.30	2.76	0.122	5.70%
4/25/2023	0.003	0.113	0.942	0.004	0.400	0.348	0.76	0.28	2.71	0.120	5.68%
4/26/2023	0.002	0.153	0.939	0.004	0.400	0.347	0.67	0.38	2.70	0.122	5.68%
4/27/2023	0.002	0.165	0.918	0.004	0.399	0.346	0.60	0.41	2.65	0.122	5.66%
4/28/2023	0.002	0.194	0.901	0.004	0.396	0.345	0.65	0.49	2.61	0.123	5.66%
5/1/2023	0.003	0.200	0.898	0.004	0.396	0.345	0.69	0.50	2.60	0.123	5.66%
5/2/2023	0.003	0.218	0.885	0.004	0.403	0.349	0.70	0.54	2.53	0.122	5.67%
5/3/2023	0.002	0.241	0.878	0.004	0.407	0.350	0.67	0.59	2.51	0.119	5.68%
5/4/2023	0.003	0.239	0.884	0.004	0.406	0.350	0.69	0.59	2.53	0.119	5.68%
5/5/2023	0.003	0.238	0.884	0.004	0.406	0.349	0.69	0.59	2.53	0.119	5.68%
5/8/2023	0.003	0.248	0.878	0.004	0.408	0.350	0.69	0.61	2.51	0.120	5.68%
5/9/2023	0.003	0.261	0.864	0.004	0.408	0.349	0.74	0.64	2.48	0.140	5.67%
5/10/2023	0.003	0.261	0.863	0.004	0.412	0.357	0.73	0.64	2.42	0.135	5.68%
5/11/2023	0.003	0.261	0.857	0.004	0.412	0.359	0.75	0.63	2.38	0.133	5.68%
5/12/2023	0.003	0.266	0.849	0.004	0.411	0.359	0.80	0.65	2.37	0.136	5.67%
5/15/2023	0.003	0.307	0.756	0.004	0.409	0.360	0.89	0.75	2.10	0.128	5.64%
5/16/2023	0.003	0.308	0.754	0.004	0.413	0.365	0.87	0.75	2.06	0.130	5.64%
5/17/2023	0.003	0.281	0.755	0.004	0.412	0.363	0.79	0.68	2.08	0.125	5.63%
5/18/2023	0.003	0.309	0.730	0.004	0.410	0.362	0.70	0.76	2.02	0.126	5.61%
5/19/2023	0.002	0.290	0.714	0.004	0.408	0.361	0.60	0.71	1.98	0.122	5.60%
5/22/2023	0.002	0.310	0.702	0.004	0.411	0.361	0.56	0.76	1.95	0.122	5.61%
5/23/2023	0.002	0.341	0.672	0.004	0.411	0.361	0.53	0.83	1.86	0.120	5.60%
5/24/2023	0.002	0.350	0.661	0.004	0.410	0.361	0.49	0.85	1.83	0.120	5.59%
5/25/2023	0.002	0.304	0.682	0.004	0.410	0.360	0.42	0.74	1.90	0.121	5.57%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/26/2023	0.002	0.272	0.694	0.004	0.405	0.354	0.47	0.67	1.96	0.120	5.56%
5/30/2023	0.001	0.230	0.717	0.004	0.404	0.353	0.37	0.57	2.03	0.119	5.55%
5/31/2023	0.001	0.269	0.701	0.004	0.406	0.354	0.40	0.66	1.98	0.120	5.54%
6/1/2023	0.001	0.267	0.693	0.004	0.406	0.353	0.37	0.66	1.96	0.118	5.54%
6/2/2023	0.001	0.195	0.806	0.004	0.399	0.349	0.17	0.49	2.31	0.130	5.45%
6/5/2023	0.001	0.197	0.783	0.004	0.394	0.345	0.34	0.50	2.27	0.131	5.39%
6/6/2023	0.001	0.183	0.790	0.004	0.397	0.346	0.29	0.46	2.28	0.131	5.39%
6/7/2023	0.001	0.242	0.748	0.003	0.400	0.348	0.25	0.61	2.15	0.132	5.38%
6/8/2023	0.001	0.265	0.721	0.003	0.402	0.350	0.33	0.66	2.06	0.131	5.38%
6/9/2023	0.001	0.271	0.713	0.003	0.402	0.353	0.33	0.67	2.02	0.129	5.38%
6/12/2023	0.001	0.251	0.728	0.003	0.404	0.354	0.36	0.62	2.06	0.130	5.38%
6/13/2023	0.002	0.256	0.686	0.003	0.403	0.355	0.44	0.63	1.93	0.128	5.37%
6/14/2023	0.001	0.299	0.716	0.003	0.402	0.354	0.35	0.74	2.03	0.133	5.34%
6/15/2023	0.002	0.162	0.675	0.003	0.397	0.347	0.58	0.41	1.95	0.126	5.24%
6/16/2023	0.002	0.179	0.657	0.003	0.395	0.346	0.47	0.45	1.90	0.126	5.22%
6/20/2023	0.001	0.182	0.624	0.003	0.394	0.345	0.36	0.46	1.81	0.124	5.20%
6/21/2023	0.001	0.187	0.622	0.003	0.399	0.345	0.37	0.47	1.80	0.124	5.20%
6/22/2023	0.001	0.174	0.635	0.003	0.404	0.356	0.40	0.43	1.79	0.123	5.20%
6/23/2023	0.002	0.188	0.641	0.003	0.405	0.355	0.45	0.46	1.80	0.125	5.20%
6/26/2023	0.001	0.249	0.581	0.003	0.404	0.355	0.32	0.62	1.64	0.127	5.17%
6/27/2023	0.001	0.261	0.565	0.003	0.407	0.363	0.23	0.64	1.56	0.123	5.17%
6/28/2023	0.001	0.316	0.535	0.003	0.407	0.360	0.29	0.78	1.49	0.124	5.17%
6/29/2023	0.001	0.319	0.532	0.003	0.407	0.359	0.25	0.79	1.48	0.123	5.17%
6/30/2023	0.001	0.311	0.523	0.003	0.406	0.359	0.29	0.77	1.46	0.124	5.17%
7/3/2023	0.001	0.322	0.520	0.003	0.407	0.360	0.31	0.79	1.45	0.124	5.17%
7/5/2023	0.001	0.318	0.510	0.003	0.406	0.359	0.42	0.78	1.42	0.144	5.16%
7/6/2023	0.002	0.301	0.556	0.003	0.405	0.360	0.51	0.74	1.55	0.146	5.15%
7/7/2023	0.002	0.284	0.560	0.003	0.408	0.364	0.59	0.70	1.54	0.144	5.16%
7/10/2023	0.002	0.267	0.582	0.003	0.406	0.361	0.67	0.66	1.61	0.146	5.13%
7/11/2023	0.002	0.280	0.562	0.003	0.405	0.361	0.63	0.69	1.56	0.145	5.14%
7/12/2023	0.002	0.274	0.570	0.003	0.404	0.360	0.68	0.68	1.58	0.145	5.13%
7/13/2023	0.002	0.271	0.558	0.003	0.404	0.361	0.70	0.67	1.55	0.145	5.13%
7/14/2023	0.002	0.263	0.562	0.003	0.405	0.361	0.69	0.65	1.56	0.144	5.13%
7/17/2023	0.002	0.267	0.560	0.003	0.405	0.361	0.66	0.66	1.55	0.144	5.13%
7/18/2023	0.002	0.266	0.563	0.003	0.405	0.362	0.67	0.66	1.55	0.145	5.13%
7/19/2023	0.002	0.252	0.565	0.003	0.406	0.363	0.61	0.62	1.56	0.143	5.14%
7/20/2023	0.002	0.253	0.564	0.003	0.407	0.366	0.62	0.62	1.54	0.143	5.14%
7/21/2023	0.002	0.249	0.561	0.003	0.407	0.366	0.61	0.61	1.53	0.142	5.14%
7/24/2023	0.002	0.252	0.559	0.003	0.407	0.366	0.62	0.62	1.53	0.144	5.13%
7/25/2023	0.002	0.235	0.586	0.003	0.406	0.364	0.61	0.58	1.61	0.143	5.14%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
7/26/2023	0.002	0.235	0.578	0.003	0.406	0.365	0.61	0.58	1.58	0.142	5.14%
7/27/2023	0.002	0.231	0.586	0.003	0.405	0.364	0.67	0.57	1.61	0.144	5.12%
7/28/2023	0.002	0.227	0.585	0.003	0.407	0.365	0.70	0.56	1.60	0.144	5.13%
7/31/2023	0.003	0.414	0.509	0.003	0.402	0.357	0.91	1.03	1.43	0.160	5.01%
8/1/2023	0.004	0.535	0.414	0.003	0.401	0.356	1.10	1.33	1.16	0.163	4.96%
8/2/2023	0.004	0.578	0.381	0.003	0.405	0.358	1.14	1.43	1.06	0.166	4.96%
8/3/2023	0.003	0.544	0.451	0.003	0.401	0.357	0.98	1.36	1.26	0.169	4.92%
8/4/2023	0.003	0.593	0.408	0.003	0.401	0.357	0.88	1.48	1.14	0.168	4.91%
8/7/2023	0.003	0.610	0.394	0.003	0.400	0.356	0.83	1.52	1.10	0.172	4.90%
8/8/2023	0.003	0.464	0.550	0.003	0.401	0.360	0.88	1.16	1.53	0.171	4.88%
8/9/2023	0.003	0.479	0.534	0.003	0.401	0.361	0.84	1.19	1.48	0.170	4.89%
8/10/2023	0.002	0.518	0.486	0.003	0.397	0.358	0.71	1.31	1.36	0.172	4.84%
8/11/2023	0.002	0.508	0.512	0.003	0.397	0.358	0.61	1.28	1.43	0.173	4.84%
8/14/2023	0.002	0.535	0.516	0.003	0.397	0.358	0.64	1.35	1.44	0.176	4.83%
8/15/2023	0.002	0.536	0.517	0.003	0.398	0.360	0.65	1.35	1.44	0.177	4.83%
8/16/2023	0.002	0.555	0.504	0.003	0.398	0.360	0.58	1.40	1.40	0.175	4.84%
8/17/2023	0.002	0.542	0.528	0.003	0.398	0.361	0.59	1.36	1.46	0.176	4.84%
8/18/2023	0.002	0.529	0.536	0.003	0.400	0.364	0.62	1.32	1.47	0.176	4.84%
8/21/2023	0.001	0.447	0.731	0.003	0.375	0.343	0.26	1.19	2.13	0.211	4.54%
8/22/2023	0.000	0.432	0.740	0.003	0.376	0.343	0.16	1.15	2.16	0.211	4.53%
8/23/2023	0.001	0.412	0.749	0.003	0.377	0.344	0.24	1.09	2.18	0.210	4.54%
8/24/2023	0.001	0.400	0.750	0.003	0.378	0.343	0.27	1.06	2.18	0.212	4.53%
8/25/2023	0.001	0.374	0.749	0.003	0.379	0.345	0.33	0.99	2.17	0.205	4.55%
8/28/2023	0.001	0.402	0.699	0.003	0.376	0.343	0.19	1.07	2.04	0.211	4.52%
8/29/2023	0.001	0.443	0.679	0.003	0.379	0.345	0.31	1.17	1.97	0.215	4.53%
8/30/2023	0.001	0.558	0.720	0.003	0.377	0.343	0.22	1.48	2.10	0.221	4.50%
8/31/2023	0.001	0.541	0.711	0.003	0.372	0.339	0.42	1.45	2.10	0.226	4.44%
9/1/2023	0.001	0.539	0.724	0.003	0.372	0.338	0.35	1.45	2.14	0.225	4.44%
9/5/2023	0.001	0.529	0.730	0.003	0.373	0.338	0.37	1.42	2.16	0.225	4.44%
9/6/2023	0.001	0.502	0.758	0.003	0.375	0.341	0.43	1.34	2.22	0.227	4.44%
9/7/2023	0.001	0.507	0.752	0.003	0.375	0.342	0.43	1.35	2.20	0.226	4.44%
9/8/2023	0.001	0.433	0.874	0.003	0.366	0.335	0.24	1.18	2.61	0.242	4.32%
9/11/2023	0.001	0.434	0.874	0.003	0.366	0.337	0.24	1.18	2.60	0.241	4.32%
9/12/2023	0.001	0.406	0.911	0.003	0.369	0.344	0.25	1.10	2.65	0.248	4.32%
9/13/2023	0.000	0.373	0.912	0.003	0.369	0.343	0.02	1.01	2.66	0.238	4.31%
9/14/2023	0.000	0.369	0.912	0.003	0.370	0.343	0.02	1.00	2.66	0.238	4.31%
9/15/2023	0.000	0.344	0.896	0.003	0.373	0.345	0.07	0.92	2.60	0.229	4.32%
9/18/2023	0.000	0.356	0.875	0.003	0.371	0.344	-0.02	0.96	2.54	0.232	4.30%
9/19/2023	0.000	0.297	0.933	0.003	0.373	0.344	-0.02	0.80	2.71	0.229	4.31%
9/20/2023	0.000	0.300	0.927	0.003	0.373	0.344	-0.03	0.81	2.70	0.229	4.31%

## Exhibit-10

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/21/2023	0.000	0.310	0.910	0.003	0.375	0.347	0.03	0.83	2.63	0.230	4.31%
9/22/2023	-0.001	0.486	0.861	0.003	0.343	0.318	-0.48	1.42	2.71	0.275	3.95%
9/25/2023	-0.001	0.486	0.859	0.003	0.343	0.319	-0.48	1.42	2.69	0.275	3.95%
9/26/2023	-0.003	0.697	0.771	0.002	0.292	0.271	-1.20	2.38	2.84	0.367	3.36%
9/27/2023	-0.003	0.748	0.730	0.002	0.288	0.268	-1.28	2.59	2.72	0.309	3.36%
9/28/2023	-0.003	0.755	0.779	0.002	0.283	0.264	-1.53	2.67	2.95	0.325	3.29%
9/29/2023	-0.003	0.763	0.767	0.002	0.283	0.265	-1.57	2.69	2.89	0.324	3.29%
10/2/2023	-0.003	0.706	0.942	0.002	0.278	0.266	-1.43	2.54	3.54	0.348	3.23%
10/3/2023	-0.003	0.730	0.922	0.002	0.279	0.265	-1.41	2.61	3.48	0.349	3.23%
10/4/2023	-0.003	0.674	0.938	0.002	0.282	0.268	-1.22	2.39	3.51	0.347	3.26%
10/5/2023	-0.002	0.731	0.927	0.002	0.286	0.269	-1.03	2.55	3.44	0.339	3.28%
10/6/2023	-0.002	0.784	0.927	0.002	0.285	0.267	-0.99	2.75	3.48	0.344	3.26%
10/9/2023	-0.002	0.782	0.929	0.002	0.285	0.266	-0.96	2.75	3.49	0.345	3.26%
10/10/2023	-0.002	0.795	0.932	0.002	0.283	0.265	-1.09	2.81	3.52	0.350	3.25%
10/11/2023	-0.002	0.788	0.933	0.002	0.285	0.265	-1.02	2.77	3.52	0.347	3.25%
10/12/2023	-0.002	0.755	0.929	0.002	0.283	0.263	-0.96	2.67	3.53	0.347	3.23%

**Source:** Computations performed by Crowninshield Financial Research, Inc.

**Notes:** Dummy variables were used to control for potentially abnormal returns on Cassava Form 8-K event dates. These dates are listed in Exhibit-8 and Exhibit-13. All estimation periods are the 252 trading days prior to each respective date.



## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/14/2020	0.007	0.469	0.635	0.005	0.439	0.453	1.44	1.07	1.40	0.653	7.76%
9/15/2020	0.007	0.469	0.636	0.005	0.440	0.454	1.44	1.07	1.40	0.653	7.78%
9/16/2020	0.007	0.490	0.604	0.005	0.442	0.456	1.32	1.11	1.32	0.650	7.81%
9/17/2020	0.007	0.489	0.604	0.005	0.442	0.456	1.30	1.11	1.33	0.650	7.81%
9/18/2020	0.007	0.494	0.598	0.005	0.442	0.456	1.33	1.12	1.31	0.659	7.81%
9/21/2020	0.008	0.363	0.722	0.005	0.459	0.473	1.53	0.79	1.53	0.632	8.12%
9/22/2020	0.008	0.326	0.764	0.005	0.457	0.471	1.60	0.71	1.62	0.633	8.10%
9/23/2020	0.008	0.317	0.780	0.005	0.458	0.472	1.60	0.69	1.65	0.634	8.10%
9/24/2020	0.008	0.343	0.762	0.005	0.458	0.473	1.56	0.75	1.61	0.633	8.10%
9/25/2020	0.008	0.333	0.773	0.005	0.457	0.473	1.53	0.73	1.64	0.635	8.10%
9/28/2020	0.008	0.320	0.812	0.005	0.461	0.478	1.62	0.69	1.70	0.631	8.15%
9/29/2020	0.008	0.306	0.818	0.005	0.461	0.477	1.62	0.66	1.71	0.631	8.15%
9/30/2020	0.009	0.306	0.819	0.005	0.460	0.477	1.64	0.66	1.72	0.631	8.15%
10/1/2020	0.008	0.302	0.827	0.005	0.460	0.477	1.61	0.66	1.73	0.631	8.15%
10/2/2020	0.008	0.303	0.824	0.005	0.461	0.478	1.59	0.66	1.73	0.631	8.15%
10/5/2020	0.008	0.273	0.869	0.005	0.460	0.476	1.57	0.59	1.82	0.631	8.15%
10/6/2020	0.008	0.251	0.900	0.005	0.458	0.471	1.57	0.55	1.91	0.631	8.15%
10/7/2020	0.008	0.250	0.902	0.005	0.458	0.470	1.58	0.55	1.92	0.631	8.15%
10/8/2020	0.008	0.248	0.912	0.005	0.458	0.471	1.60	0.54	1.94	0.631	8.16%
10/9/2020	0.008	0.254	0.907	0.005	0.458	0.471	1.62	0.55	1.93	0.631	8.15%
10/12/2020	0.008	0.250	0.908	0.005	0.459	0.471	1.59	0.54	1.93	0.631	8.16%
10/13/2020	0.008	0.235	0.917	0.005	0.459	0.472	1.54	0.51	1.94	0.630	8.17%
10/14/2020	0.008	0.242	0.910	0.005	0.459	0.472	1.52	0.53	1.93	0.630	8.17%
10/15/2020	0.008	0.236	0.921	0.005	0.459	0.472	1.52	0.51	1.95	0.630	8.17%
10/16/2020	0.008	0.239	0.917	0.005	0.456	0.467	1.55	0.52	1.96	0.631	8.17%
10/19/2020	0.008	0.244	0.912	0.005	0.456	0.468	1.53	0.54	1.95	0.631	8.17%
10/20/2020	0.008	0.240	0.925	0.005	0.456	0.468	1.48	0.53	1.98	0.630	8.18%
10/21/2020	0.008	0.212	0.962	0.005	0.455	0.467	1.50	0.47	2.06	0.631	8.17%
10/22/2020	0.008	0.154	1.032	0.005	0.455	0.467	1.53	0.34	2.21	0.632	8.15%
10/23/2020	0.008	0.158	1.023	0.005	0.455	0.466	1.45	0.35	2.20	0.633	8.14%
10/26/2020	0.008	0.157	1.024	0.005	0.455	0.466	1.45	0.35	2.20	0.633	8.14%
10/27/2020	0.007	0.161	1.023	0.005	0.454	0.466	1.42	0.36	2.20	0.633	8.14%
10/28/2020	0.008	0.154	1.036	0.005	0.454	0.466	1.45	0.34	2.22	0.633	8.14%
10/29/2020	0.007	0.168	1.028	0.005	0.453	0.466	1.39	0.37	2.21	0.633	8.13%
10/30/2020	0.007	0.167	1.028	0.005	0.453	0.466	1.40	0.37	2.21	0.634	8.13%
11/2/2020	0.007	0.159	1.043	0.005	0.453	0.465	1.38	0.35	2.24	0.634	8.14%
11/3/2020	0.008	0.175	1.037	0.005	0.453	0.467	1.46	0.39	2.22	0.633	8.15%
11/4/2020	0.008	0.179	1.033	0.005	0.453	0.467	1.48	0.40	2.21	0.637	8.15%
11/5/2020	0.008	0.179	1.033	0.005	0.454	0.468	1.48	0.39	2.21	0.636	8.16%
11/6/2020	0.007	0.102	1.105	0.005	0.453	0.468	1.37	0.23	2.36	0.634	8.19%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
11/9/2020	0.007	0.116	1.088	0.005	0.452	0.466	1.41	0.26	2.34	0.634	8.19%
11/10/2020	0.007	0.065	1.146	0.005	0.451	0.466	1.41	0.14	2.46	0.634	8.19%
11/11/2020	0.007	0.068	1.143	0.005	0.451	0.466	1.40	0.15	2.45	0.634	8.19%
11/12/2020	0.008	0.062	1.155	0.005	0.452	0.467	1.46	0.14	2.48	0.634	8.20%
11/13/2020	0.008	0.055	1.161	0.005	0.451	0.466	1.48	0.12	2.49	0.640	8.20%
11/16/2020	0.008	0.057	1.159	0.005	0.452	0.468	1.48	0.13	2.48	0.639	8.22%
11/17/2020	0.008	0.039	1.178	0.005	0.451	0.467	1.47	0.09	2.52	0.639	8.22%
11/18/2020	0.008	0.037	1.180	0.005	0.452	0.467	1.46	0.08	2.53	0.639	8.22%
11/19/2020	0.008	0.028	1.196	0.005	0.453	0.469	1.42	0.06	2.55	0.639	8.23%
11/20/2020	0.008	0.021	1.203	0.005	0.453	0.470	1.43	0.05	2.56	0.639	8.23%
11/23/2020	0.007	0.031	1.193	0.005	0.453	0.469	1.40	0.07	2.54	0.639	8.23%
11/24/2020	0.007	0.026	1.195	0.005	0.453	0.470	1.36	0.06	2.55	0.638	8.23%
11/25/2020	0.007	0.051	1.166	0.005	0.452	0.470	1.35	0.11	2.48	0.638	8.23%
11/27/2020	0.007	0.044	1.174	0.005	0.452	0.470	1.40	0.10	2.50	0.638	8.24%
11/30/2020	0.007	0.069	1.142	0.005	0.448	0.464	1.36	0.15	2.46	0.637	8.24%
12/1/2020	0.007	0.083	1.127	0.005	0.447	0.463	1.33	0.19	2.44	0.637	8.24%
12/2/2020	0.006	0.077	1.146	0.005	0.444	0.460	1.19	0.17	2.49	0.641	8.19%
12/3/2020	0.006	0.066	1.158	0.005	0.445	0.461	1.18	0.15	2.51	0.641	8.19%
12/4/2020	0.006	0.066	1.156	0.005	0.445	0.460	1.17	0.15	2.51	0.641	8.19%
12/7/2020	0.006	0.057	1.169	0.005	0.446	0.462	1.16	0.13	2.53	0.641	8.19%
12/8/2020	0.006	0.057	1.169	0.005	0.445	0.461	1.14	0.13	2.54	0.642	8.17%
12/9/2020	0.006	0.055	1.170	0.005	0.444	0.459	1.21	0.12	2.55	0.643	8.16%
12/10/2020	0.007	0.051	1.174	0.005	0.444	0.459	1.24	0.11	2.56	0.643	8.16%
12/11/2020	0.006	0.057	1.164	0.005	0.444	0.458	1.18	0.13	2.54	0.643	8.16%
12/14/2020	0.006	0.050	1.165	0.005	0.443	0.457	1.15	0.11	2.55	0.644	8.15%
12/15/2020	0.006	0.049	1.165	0.005	0.444	0.458	1.15	0.11	2.54	0.642	8.16%
12/16/2020	0.006	0.058	1.161	0.005	0.443	0.458	1.20	0.13	2.54	0.642	8.16%
12/17/2020	0.006	0.061	1.157	0.005	0.442	0.457	1.23	0.14	2.53	0.643	8.16%
12/18/2020	0.007	0.062	1.158	0.005	0.442	0.457	1.30	0.14	2.54	0.643	8.15%
12/21/2020	0.006	0.073	1.142	0.005	0.440	0.455	1.17	0.17	2.51	0.644	8.13%
12/22/2020	0.005	0.090	1.116	0.005	0.437	0.452	1.03	0.21	2.47	0.647	8.07%
12/23/2020	0.003	0.164	1.023	0.005	0.407	0.421	0.68	0.40	2.43	0.679	7.52%
12/24/2020	0.002	0.193	0.987	0.005	0.399	0.413	0.49	0.48	2.39	0.688	7.37%
12/28/2020	0.003	0.225	0.952	0.005	0.397	0.411	0.58	0.57	2.32	0.690	7.33%
12/29/2020	0.002	0.155	1.041	0.005	0.385	0.398	0.34	0.40	2.62	0.703	7.13%
12/30/2020	0.001	0.125	1.090	0.005	0.381	0.393	0.14	0.33	2.77	0.708	7.05%
12/31/2020	0.001	0.123	1.098	0.004	0.376	0.389	0.32	0.33	2.83	0.713	6.97%
1/4/2021	0.000	-0.004	1.230	0.004	0.358	0.370	0.00	-0.01	3.32	0.734	6.63%
1/5/2021	-0.001	-0.049	1.307	0.004	0.342	0.354	-0.31	-0.14	3.69	0.752	6.33%
1/6/2021	0.000	-0.044	1.311	0.004	0.341	0.352	-0.11	-0.13	3.72	0.754	6.30%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
1/7/2021	0.000	-0.058	1.329	0.004	0.339	0.350	0.05	-0.17	3.80	0.756	6.27%
1/8/2021	0.000	-0.044	1.307	0.004	0.336	0.347	-0.06	-0.13	3.77	0.758	6.23%
1/11/2021	0.000	-0.042	1.309	0.004	0.335	0.345	0.02	-0.13	3.79	0.760	6.21%
1/12/2021	0.000	-0.041	1.309	0.004	0.335	0.345	-0.02	-0.12	3.79	0.760	6.20%
1/13/2021	0.000	0.028	1.234	0.004	0.333	0.343	0.11	0.08	3.59	0.770	6.14%
1/14/2021	0.002	0.078	1.173	0.004	0.354	0.366	0.39	0.22	3.21	0.741	6.51%
1/15/2021	0.001	0.157	1.075	0.004	0.352	0.363	0.16	0.45	2.96	0.740	6.52%
1/19/2021	0.001	0.153	1.078	0.004	0.352	0.363	0.16	0.43	2.97	0.743	6.52%
1/20/2021	0.002	0.118	1.137	0.004	0.357	0.368	0.37	0.33	3.09	0.735	6.62%
1/21/2021	0.001	0.105	1.144	0.004	0.357	0.368	0.34	0.30	3.11	0.734	6.63%
1/22/2021	0.001	0.104	1.146	0.004	0.357	0.368	0.31	0.29	3.12	0.734	6.62%
1/25/2021	0.002	0.098	1.152	0.004	0.357	0.368	0.40	0.28	3.13	0.736	6.63%
1/26/2021	0.003	0.052	1.207	0.004	0.362	0.373	0.61	0.14	3.24	0.732	6.72%
1/27/2021	0.004	0.138	1.092	0.004	0.370	0.381	0.82	0.37	2.87	0.718	6.88%
1/28/2021	0.003	0.143	1.056	0.004	0.366	0.375	0.72	0.39	2.81	0.723	6.80%
1/29/2021	0.003	0.132	1.063	0.004	0.366	0.376	0.70	0.36	2.83	0.722	6.80%
2/1/2021	0.003	0.110	1.081	0.004	0.365	0.376	0.77	0.30	2.87	0.723	6.81%
2/2/2021	0.004	0.139	1.073	0.004	0.368	0.379	0.85	0.38	2.83	0.762	6.86%
2/3/2021	0.007	0.253	1.057	0.006	0.474	0.490	1.30	0.53	2.16	0.620	8.85%
2/4/2021	0.009	0.308	0.994	0.006	0.500	0.517	1.56	0.61	1.92	0.586	9.33%
2/5/2021	0.008	0.312	0.951	0.006	0.516	0.535	1.29	0.60	1.78	0.572	9.61%
2/8/2021	0.007	0.398	0.823	0.006	0.532	0.550	1.04	0.75	1.50	0.552	9.90%
2/9/2021	0.007	0.399	0.819	0.006	0.533	0.551	1.07	0.75	1.49	0.551	9.92%
2/10/2021	0.007	0.388	0.834	0.006	0.533	0.551	1.04	0.73	1.51	0.552	9.93%
2/11/2021	0.007	0.389	0.833	0.006	0.534	0.553	1.05	0.73	1.51	0.550	9.95%
2/12/2021	0.007	0.388	0.835	0.006	0.534	0.553	1.04	0.73	1.51	0.550	9.95%
2/16/2021	0.007	0.389	0.830	0.006	0.535	0.553	1.01	0.73	1.50	0.551	9.95%
2/17/2021	0.007	0.387	0.834	0.006	0.535	0.554	1.05	0.72	1.50	0.550	9.96%
2/18/2021	0.007	0.389	0.831	0.006	0.535	0.554	1.05	0.73	1.50	0.550	9.96%
2/19/2021	0.007	0.388	0.836	0.006	0.534	0.552	1.10	0.73	1.51	0.551	9.95%
2/22/2021	0.007	0.375	0.854	0.006	0.534	0.552	1.13	0.70	1.55	0.550	9.96%
2/23/2021	0.007	0.384	0.855	0.006	0.533	0.549	1.06	0.72	1.56	0.551	9.95%
2/24/2021	0.007	0.381	0.858	0.006	0.533	0.548	1.06	0.71	1.57	0.550	9.95%
2/25/2021	0.007	0.366	0.859	0.006	0.533	0.548	1.09	0.69	1.57	0.551	9.95%
2/26/2021	0.007	0.332	0.901	0.006	0.534	0.549	1.13	0.62	1.64	0.552	9.94%
3/1/2021	0.007	0.331	0.887	0.006	0.535	0.550	1.12	0.62	1.61	0.551	9.94%
3/2/2021	0.008	0.305	0.913	0.006	0.535	0.550	1.16	0.57	1.66	0.551	9.93%
3/3/2021	0.007	0.313	0.863	0.006	0.534	0.550	1.14	0.59	1.57	0.551	9.92%
3/4/2021	0.007	0.297	0.880	0.006	0.532	0.545	1.14	0.56	1.62	0.552	9.92%
3/5/2021	0.007	0.287	0.943	0.006	0.532	0.546	1.15	0.54	1.73	0.552	9.91%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/8/2021	0.007	0.306	0.923	0.006	0.534	0.546	1.09	0.57	1.69	0.552	9.92%
3/9/2021	0.007	0.319	0.901	0.006	0.534	0.545	1.12	0.60	1.65	0.553	9.92%
3/10/2021	0.008	0.220	0.886	0.006	0.538	0.544	1.23	0.41	1.63	0.551	9.90%
3/11/2021	0.008	0.226	0.884	0.006	0.543	0.545	1.22	0.42	1.62	0.551	9.90%
3/12/2021	0.009	0.183	0.863	0.006	0.542	0.542	1.32	0.34	1.59	0.551	9.87%
3/15/2021	0.010	0.010	0.818	0.006	0.545	0.538	1.49	0.02	1.52	0.551	9.80%
3/16/2021	0.009	-0.145	0.792	0.006	0.548	0.534	1.41	-0.26	1.48	0.553	9.73%
3/17/2021	0.009	-0.109	0.790	0.006	0.574	0.534	1.37	-0.19	1.48	0.556	9.73%
3/18/2021	0.010	-0.096	0.928	0.006	0.575	0.540	1.54	-0.17	1.72	0.555	9.75%
3/19/2021	0.009	-0.026	0.940	0.006	0.598	0.543	1.43	-0.04	1.73	0.554	9.76%
3/22/2021	0.009	-0.014	0.906	0.006	0.597	0.542	1.38	-0.02	1.67	0.554	9.75%
3/23/2021	0.009	-0.059	0.894	0.006	0.601	0.541	1.41	-0.10	1.65	0.554	9.74%
3/24/2021	0.008	-0.015	0.898	0.006	0.604	0.535	1.32	-0.02	1.68	0.555	9.73%
3/25/2021	0.008	-0.007	0.925	0.006	0.637	0.534	1.29	-0.01	1.73	0.554	9.74%
3/26/2021	0.008	0.037	0.891	0.006	0.643	0.538	1.32	0.06	1.66	0.555	9.73%
3/29/2021	0.008	0.062	0.921	0.006	0.649	0.537	1.30	0.09	1.71	0.555	9.74%
3/30/2021	0.008	0.104	0.924	0.006	0.655	0.537	1.22	0.16	1.72	0.555	9.74%
3/31/2021	0.008	0.122	0.978	0.006	0.654	0.538	1.27	0.19	1.82	0.557	9.72%
4/1/2021	0.008	0.134	0.970	0.006	0.654	0.534	1.25	0.21	1.82	0.557	9.71%
4/5/2021	0.008	0.214	0.970	0.006	0.662	0.534	1.20	0.32	1.82	0.558	9.71%
4/6/2021	0.007	0.206	0.918	0.006	0.660	0.537	1.11	0.31	1.71	0.558	9.70%
4/7/2021	0.007	0.203	0.926	0.006	0.662	0.537	1.08	0.31	1.72	0.557	9.70%
4/8/2021	0.007	0.315	0.927	0.006	0.684	0.535	1.08	0.46	1.73	0.558	9.69%
4/9/2021	0.007	0.328	0.911	0.006	0.685	0.537	1.09	0.48	1.70	0.558	9.69%
4/12/2021	0.007	0.289	0.913	0.006	0.689	0.537	1.07	0.42	1.70	0.560	9.69%
4/13/2021	0.006	0.294	0.957	0.006	0.694	0.538	1.01	0.42	1.78	0.557	9.72%
4/14/2021	0.006	0.393	0.889	0.006	0.694	0.536	0.90	0.57	1.66	0.559	9.69%
4/15/2021	0.006	0.418	0.881	0.006	0.693	0.534	0.89	0.60	1.65	0.559	9.69%
4/16/2021	0.006	0.411	0.875	0.006	0.696	0.534	0.87	0.59	1.64	0.558	9.69%
4/19/2021	0.005	0.409	0.877	0.006	0.699	0.540	0.86	0.58	1.62	0.558	9.69%
4/20/2021	0.006	0.420	0.910	0.006	0.698	0.544	0.87	0.60	1.67	0.559	9.69%
4/21/2021	0.006	0.372	0.951	0.006	0.707	0.550	0.88	0.53	1.73	0.559	9.69%
4/22/2021	0.006	0.389	0.975	0.006	0.712	0.550	0.90	0.55	1.77	0.559	9.69%
4/23/2021	0.006	0.368	0.983	0.006	0.716	0.550	0.92	0.51	1.79	0.559	9.69%
4/26/2021	0.005	0.401	0.979	0.006	0.703	0.541	0.80	0.57	1.81	0.567	9.54%
4/27/2021	0.005	0.392	1.017	0.006	0.702	0.540	0.86	0.56	1.88	0.568	9.54%
4/28/2021	0.006	0.387	1.012	0.006	0.705	0.540	0.89	0.55	1.87	0.567	9.54%
4/29/2021	0.006	0.386	1.014	0.006	0.706	0.543	0.92	0.55	1.87	0.567	9.55%
4/30/2021	0.006	0.326	1.033	0.006	0.715	0.543	0.90	0.46	1.90	0.567	9.55%
5/3/2021	0.006	0.320	1.028	0.006	0.715	0.543	0.92	0.45	1.89	0.567	9.54%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/4/2021	0.005	0.326	1.031	0.006	0.722	0.544	0.84	0.45	1.90	0.566	9.56%
5/5/2021	0.005	0.331	1.029	0.006	0.724	0.545	0.82	0.46	1.89	0.566	9.56%
5/6/2021	0.005	0.330	1.038	0.006	0.724	0.546	0.86	0.46	1.90	0.566	9.56%
5/7/2021	0.006	0.313	1.047	0.006	0.724	0.546	0.88	0.43	1.92	0.566	9.56%
5/10/2021	0.006	0.306	1.050	0.006	0.728	0.548	0.87	0.42	1.92	0.565	9.58%
5/11/2021	0.005	0.228	1.086	0.006	0.729	0.546	0.77	0.31	1.99	0.566	9.55%
5/12/2021	0.005	0.248	1.062	0.006	0.737	0.561	0.76	0.34	1.89	0.566	9.55%
5/13/2021	0.005	0.288	1.048	0.006	0.727	0.559	0.73	0.40	1.87	0.565	9.53%
5/14/2021	0.005	0.245	1.057	0.006	0.730	0.559	0.77	0.34	1.89	0.566	9.53%
5/17/2021	0.005	0.234	1.087	0.006	0.732	0.559	0.78	0.32	1.94	0.566	9.53%
5/18/2021	0.005	0.217	1.100	0.006	0.730	0.558	0.83	0.30	1.97	0.338	9.52%
5/19/2021	0.005	0.100	1.147	0.006	0.743	0.559	0.86	0.13	2.05	0.337	9.52%
5/20/2021	0.006	0.098	1.129	0.006	0.743	0.560	0.90	0.13	2.02	0.336	9.52%
5/21/2021	0.006	0.121	1.143	0.006	0.743	0.558	0.94	0.16	2.05	0.337	9.51%
5/24/2021	0.006	0.118	1.136	0.006	0.743	0.558	0.97	0.16	2.04	0.337	9.50%
5/25/2021	0.006	0.098	1.145	0.006	0.741	0.557	0.93	0.13	2.06	0.337	9.51%
5/26/2021	0.006	0.058	1.177	0.006	0.752	0.566	0.91	0.08	2.08	0.338	9.50%
5/27/2021	0.006	0.069	1.181	0.006	0.755	0.566	0.95	0.09	2.09	0.338	9.51%
5/28/2021	0.006	0.055	1.196	0.006	0.756	0.567	1.03	0.07	2.11	0.337	9.52%
6/1/2021	0.006	0.056	1.197	0.006	0.757	0.570	1.01	0.07	2.10	0.337	9.52%
6/2/2021	0.007	0.077	1.178	0.006	0.759	0.571	1.05	0.10	2.06	0.336	9.53%
6/3/2021	0.007	0.090	1.177	0.006	0.760	0.571	1.12	0.12	2.06	0.335	9.53%
6/4/2021	0.007	0.084	1.180	0.006	0.757	0.569	1.13	0.11	2.07	0.285	9.51%
6/7/2021	0.008	0.098	1.126	0.006	0.747	0.561	1.32	0.13	2.01	0.291	9.38%
6/8/2021	0.008	0.151	1.103	0.006	0.752	0.553	1.35	0.20	2.00	0.291	9.37%
6/9/2021	0.008	0.163	1.103	0.006	0.754	0.553	1.37	0.22	2.00	0.292	9.37%
6/10/2021	0.008	0.248	1.049	0.006	0.753	0.550	1.27	0.33	1.91	0.291	9.37%
6/11/2021	0.008	0.238	1.046	0.006	0.754	0.549	1.27	0.32	1.91	0.295	9.37%
6/14/2021	0.008	0.254	1.003	0.006	0.800	0.552	1.37	0.32	1.82	0.287	9.42%
6/15/2021	0.009	0.305	0.991	0.006	0.803	0.553	1.40	0.38	1.79	0.285	9.42%
6/16/2021	0.008	0.292	0.999	0.006	0.803	0.552	1.36	0.36	1.81	0.286	9.43%
6/17/2021	0.009	0.252	0.991	0.006	0.808	0.554	1.42	0.31	1.79	0.283	9.45%
6/18/2021	0.009	0.243	0.994	0.006	0.808	0.553	1.43	0.30	1.80	0.282	9.45%
6/21/2021	0.009	0.232	1.000	0.006	0.804	0.553	1.44	0.29	1.81	0.285	9.45%
6/22/2021	0.010	0.238	1.039	0.006	0.815	0.568	1.53	0.29	1.83	0.288	9.47%
6/23/2021	0.010	0.238	1.039	0.006	0.815	0.568	1.53	0.29	1.83	0.288	9.47%
6/24/2021	0.009	0.237	1.037	0.006	0.815	0.568	1.50	0.29	1.83	0.288	9.47%
6/25/2021	0.009	0.451	1.010	0.006	0.821	0.565	1.38	0.55	1.79	0.293	9.41%
6/28/2021	0.009	0.477	1.010	0.006	0.821	0.564	1.39	0.58	1.79	0.294	9.41%
6/29/2021	0.008	0.604	1.011	0.006	0.827	0.563	1.33	0.73	1.79	0.296	9.39%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/30/2021	0.008	0.717	0.954	0.006	0.832	0.565	1.35	0.86	1.69	0.297	9.37%
7/1/2021	0.009	0.734	0.963	0.006	0.833	0.565	1.39	0.88	1.71	0.297	9.37%
7/2/2021	0.009	0.734	0.971	0.006	0.833	0.564	1.43	0.88	1.72	0.298	9.37%
7/6/2021	0.009	0.740	0.978	0.006	0.831	0.562	1.48	0.89	1.74	0.298	9.36%
7/7/2021	0.009	0.737	0.966	0.006	0.835	0.562	1.50	0.88	1.72	0.298	9.36%
7/8/2021	0.009	0.804	0.919	0.006	0.840	0.563	1.49	0.96	1.63	0.299	9.36%
7/9/2021	0.010	0.729	0.963	0.006	0.837	0.562	1.57	0.87	1.71	0.300	9.38%
7/12/2021	0.009	0.633	0.979	0.006	0.840	0.564	1.51	0.75	1.73	0.294	9.41%
7/13/2021	0.009	0.558	1.023	0.006	0.844	0.566	1.49	0.66	1.81	0.295	9.40%
7/14/2021	0.009	0.599	1.025	0.006	0.844	0.565	1.46	0.71	1.81	0.297	9.39%
7/15/2021	0.009	0.596	1.061	0.006	0.844	0.566	1.44	0.71	1.87	0.303	9.39%
7/16/2021	0.009	0.698	1.053	0.006	0.847	0.568	1.37	0.82	1.85	0.296	9.43%
7/19/2021	0.008	0.744	1.023	0.006	0.840	0.564	1.34	0.89	1.82	0.299	9.41%
7/20/2021	0.009	0.686	1.078	0.006	0.828	0.561	1.42	0.83	1.92	0.301	9.41%
7/21/2021	0.009	0.742	1.081	0.006	0.826	0.561	1.47	0.90	1.93	0.313	9.41%
7/22/2021	0.010	0.802	1.116	0.006	0.839	0.575	1.57	0.96	1.94	0.296	9.53%
7/23/2021	0.010	0.813	1.108	0.006	0.840	0.575	1.63	0.97	1.93	0.295	9.54%
7/26/2021	0.010	0.796	1.108	0.006	0.841	0.576	1.59	0.95	1.92	0.295	9.54%
7/27/2021	0.010	0.777	1.164	0.006	0.837	0.573	1.53	0.93	2.03	0.297	9.53%
7/28/2021	0.010	0.743	1.204	0.006	0.837	0.577	1.62	0.89	2.09	0.297	9.53%
7/29/2021	0.010	0.732	1.214	0.006	0.833	0.570	1.64	0.88	2.13	0.314	9.53%
7/30/2021	0.010	0.766	1.194	0.006	0.844	0.575	1.65	0.91	2.08	0.344	9.55%
8/2/2021	0.009	0.927	1.141	0.006	0.874	0.596	1.34	1.06	1.91	0.298	9.89%
8/3/2021	0.009	0.898	1.156	0.007	0.882	0.604	1.43	1.02	1.91	0.293	9.93%
8/4/2021	0.010	0.877	1.198	0.007	0.883	0.608	1.46	0.99	1.97	0.294	9.93%
8/5/2021	0.010	0.875	1.199	0.006	0.880	0.605	1.49	0.99	1.98	0.297	9.93%
8/6/2021	0.010	0.880	1.238	0.007	0.884	0.605	1.57	1.00	2.04	0.295	9.95%
8/9/2021	0.010	0.885	1.244	0.007	0.883	0.603	1.58	1.00	2.06	0.295	9.94%
8/10/2021	0.011	0.845	1.284	0.006	0.878	0.596	1.62	0.96	2.15	0.295	9.95%
8/11/2021	0.011	0.851	1.274	0.006	0.878	0.595	1.63	0.97	2.14	0.294	9.95%
8/12/2021	0.011	0.884	1.232	0.007	0.871	0.586	1.66	1.01	2.10	0.295	9.95%
8/13/2021	0.011	0.824	1.239	0.006	0.872	0.586	1.65	0.95	2.12	0.293	9.94%
8/16/2021	0.011	0.812	1.246	0.006	0.871	0.585	1.70	0.93	2.13	0.294	9.93%
8/17/2021	0.011	0.796	1.272	0.006	0.871	0.584	1.64	0.91	2.18	0.297	9.93%
8/18/2021	0.010	0.971	1.141	0.007	0.865	0.581	1.52	1.12	1.96	0.291	9.97%
8/19/2021	0.010	0.970	1.128	0.007	0.865	0.581	1.57	1.12	1.94	0.292	9.97%
8/20/2021	0.010	0.956	1.152	0.007	0.863	0.577	1.54	1.11	2.00	0.292	9.97%
8/23/2021	0.010	0.962	1.145	0.007	0.863	0.576	1.55	1.11	1.99	0.294	9.97%
8/24/2021	0.011	0.973	1.161	0.007	0.863	0.571	1.64	1.13	2.03	0.293	9.96%
8/25/2021	0.011	1.008	1.138	0.006	0.867	0.574	1.66	1.16	1.98	0.322	9.96%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/26/2021	0.009	1.012	1.096	0.007	0.896	0.595	1.36	1.13	1.84	0.281	10.28%
8/27/2021	0.009	1.063	1.093	0.007	0.901	0.598	1.27	1.18	1.83	0.284	10.32%
8/30/2021	0.008	0.921	1.136	0.007	0.906	0.603	1.17	1.02	1.88	0.273	10.41%
8/31/2021	0.008	0.894	1.152	0.007	0.909	0.604	1.11	0.98	1.91	0.271	10.43%
9/1/2021	0.008	0.858	1.183	0.007	0.912	0.609	1.16	0.94	1.94	0.272	10.43%
9/2/2021	0.007	0.898	1.138	0.007	0.923	0.617	1.09	0.97	1.85	0.269	10.46%
9/3/2021	0.008	0.897	1.144	0.007	0.921	0.615	1.11	0.97	1.86	0.273	10.44%
9/7/2021	0.007	0.979	1.157	0.007	0.936	0.616	1.01	1.05	1.88	0.273	10.44%
9/8/2021	0.007	0.996	1.154	0.007	0.938	0.616	0.98	1.06	1.87	0.272	10.45%
9/9/2021	0.006	1.102	1.143	0.007	0.954	0.615	0.91	1.16	1.86	0.274	10.44%
9/10/2021	0.006	1.080	1.156	0.007	0.959	0.616	0.95	1.13	1.88	0.273	10.45%
9/13/2021	0.007	1.069	1.158	0.007	0.961	0.616	0.97	1.11	1.88	0.274	10.45%
9/14/2021	0.006	1.036	1.190	0.007	0.958	0.613	0.93	1.08	1.94	0.278	10.44%
9/15/2021	0.006	1.095	1.176	0.007	0.957	0.613	0.85	1.14	1.92	0.114	10.44%
9/16/2021	0.006	1.107	1.205	0.007	0.954	0.612	0.94	1.16	1.97	0.116	10.41%
9/17/2021	0.006	1.110	1.202	0.007	0.954	0.611	0.94	1.16	1.97	0.118	10.41%
9/20/2021	0.007	1.037	1.243	0.007	0.953	0.611	0.99	1.09	2.03	0.115	10.43%
9/21/2021	0.005	1.332	1.084	0.007	0.931	0.598	0.79	1.43	1.81	0.126	10.18%
9/22/2021	0.005	1.313	1.114	0.007	0.932	0.599	0.82	1.41	1.86	0.123	10.19%
9/23/2021	0.005	1.276	1.123	0.007	0.929	0.598	0.79	1.37	1.88	0.128	10.19%
9/24/2021	0.006	1.280	1.144	0.007	0.946	0.600	0.86	1.35	1.91	0.123	10.21%
9/27/2021	0.006	1.305	1.114	0.007	0.945	0.598	0.89	1.38	1.86	0.125	10.22%
9/28/2021	0.006	1.248	1.061	0.007	0.947	0.598	0.90	1.32	1.77	0.119	10.21%
9/29/2021	0.006	1.318	1.044	0.007	0.948	0.597	0.93	1.39	1.75	0.121	10.20%
9/30/2021	0.006	1.325	1.046	0.007	0.950	0.597	0.89	1.39	1.75	0.120	10.21%
10/1/2021	0.006	1.325	1.047	0.007	0.945	0.596	0.90	1.40	1.76	0.121	10.21%
10/4/2021	0.006	1.299	1.074	0.007	0.935	0.589	0.91	1.39	1.82	0.125	10.20%
10/5/2021	0.006	1.338	1.074	0.007	0.934	0.591	0.88	1.43	1.82	0.122	10.21%
10/6/2021	0.006	1.358	1.062	0.007	0.932	0.598	0.89	1.46	1.78	0.123	10.21%
10/7/2021	0.006	1.318	1.100	0.007	0.935	0.597	0.84	1.41	1.84	0.120	10.23%
10/8/2021	0.005	1.304	1.094	0.007	0.936	0.597	0.83	1.39	1.83	0.120	10.23%
10/11/2021	0.005	1.314	1.096	0.007	0.938	0.597	0.81	1.40	1.83	0.119	10.23%
10/12/2021	0.006	1.338	1.097	0.007	0.937	0.597	0.84	1.43	1.84	0.120	10.22%
10/13/2021	0.006	1.399	1.087	0.007	0.940	0.596	0.88	1.49	1.82	0.122	10.21%
10/14/2021	0.006	1.393	1.096	0.007	0.942	0.597	0.92	1.48	1.83	0.122	10.22%
10/15/2021	0.006	1.330	1.096	0.007	0.939	0.598	0.89	1.42	1.83	0.122	10.23%
10/18/2021	0.006	1.275	1.135	0.007	0.940	0.603	0.84	1.36	1.88	0.120	10.24%
10/19/2021	0.006	1.270	1.138	0.007	0.938	0.601	0.88	1.35	1.90	0.121	10.23%
10/20/2021	0.006	1.235	1.117	0.007	0.941	0.601	0.85	1.31	1.86	0.118	10.25%
10/21/2021	0.006	1.247	1.107	0.007	0.942	0.602	0.86	1.32	1.84	0.117	10.24%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/22/2021	0.006	1.253	1.088	0.007	0.942	0.603	0.87	1.33	1.81	0.117	10.24%
10/25/2021	0.006	1.255	1.100	0.007	0.941	0.603	0.88	1.33	1.82	0.118	10.24%
10/26/2021	0.006	1.250	1.105	0.007	0.941	0.603	0.87	1.33	1.83	0.118	10.24%
10/27/2021	0.006	1.251	1.105	0.007	0.951	0.603	0.86	1.32	1.83	0.118	10.24%
10/28/2021	0.006	1.257	1.116	0.007	0.953	0.603	0.84	1.32	1.85	0.118	10.24%
10/29/2021	0.005	1.279	1.099	0.007	0.980	0.603	0.79	1.31	1.82	0.117	10.24%
11/1/2021	0.005	1.288	1.101	0.007	0.982	0.603	0.78	1.31	1.83	0.117	10.24%
11/2/2021	0.006	1.269	1.108	0.007	0.985	0.603	0.82	1.29	1.84	0.130	10.25%
11/3/2021	0.006	1.174	1.176	0.007	0.998	0.608	0.92	1.18	1.93	0.114	10.33%
11/4/2021	0.006	1.193	1.154	0.007	1.005	0.607	0.90	1.19	1.90	0.156	10.34%
11/5/2021	0.008	1.497	0.877	0.007	1.032	0.621	1.08	1.45	1.41	0.092	10.65%
11/8/2021	0.008	1.850	0.704	0.007	1.043	0.615	1.17	1.77	1.14	0.093	10.62%
11/9/2021	0.008	1.839	0.715	0.007	1.044	0.617	1.14	1.76	1.16	0.099	10.62%
11/10/2021	0.008	1.929	0.704	0.007	1.053	0.620	1.09	1.83	1.13	0.099	10.64%
11/11/2021	0.007	1.992	0.715	0.007	1.053	0.622	1.04	1.89	1.15	0.096	10.66%
11/12/2021	0.007	1.982	0.703	0.007	1.053	0.621	1.03	1.88	1.13	0.096	10.66%
11/15/2021	0.007	1.984	0.701	0.007	1.058	0.623	0.96	1.88	1.13	0.100	10.67%
11/16/2021	0.006	1.981	0.716	0.007	1.059	0.623	0.88	1.87	1.15	0.072	10.68%
11/17/2021	0.006	2.050	0.693	0.007	1.064	0.624	0.91	1.93	1.11	0.096	10.67%
11/18/2021	0.005	2.182	0.653	0.007	1.077	0.632	0.74	2.03	1.03	0.072	10.81%
11/19/2021	0.005	2.172	0.639	0.007	1.077	0.633	0.77	2.02	1.01	0.073	10.81%
11/22/2021	0.006	2.131	0.663	0.007	1.078	0.633	0.84	1.98	1.05	0.071	10.82%
11/23/2021	0.006	2.115	0.671	0.007	1.080	0.634	0.86	1.96	1.06	0.070	10.82%
11/24/2021	0.006	2.150	0.662	0.007	1.081	0.634	0.88	1.99	1.04	0.073	10.81%
11/26/2021	0.007	2.187	0.652	0.007	1.097	0.640	0.94	1.99	1.02	0.072	10.83%
11/29/2021	0.006	2.190	0.645	0.007	1.064	0.632	0.91	2.06	1.02	0.072	10.82%
11/30/2021	0.006	2.130	0.679	0.007	1.064	0.640	0.90	2.00	1.06	0.072	10.83%
12/1/2021	0.006	2.091	0.690	0.007	1.055	0.642	0.92	1.98	1.07	0.074	10.83%
12/2/2021	0.006	2.169	0.695	0.007	1.054	0.642	0.92	2.06	1.08	0.074	10.83%
12/3/2021	0.006	2.111	0.708	0.007	1.046	0.641	0.91	2.02	1.10	0.074	10.83%
12/6/2021	0.006	2.118	0.714	0.007	1.045	0.640	0.90	2.03	1.11	0.075	10.83%
12/7/2021	0.006	2.028	0.768	0.007	1.035	0.633	0.87	1.96	1.21	0.075	10.84%
12/8/2021	0.006	2.027	0.770	0.007	1.032	0.630	0.89	1.96	1.22	0.076	10.84%
12/9/2021	0.006	2.029	0.769	0.007	1.033	0.631	0.89	1.96	1.22	0.078	10.84%
12/10/2021	0.006	2.056	0.795	0.007	1.033	0.630	0.85	1.99	1.26	0.077	10.84%
12/13/2021	0.006	2.000	0.843	0.007	1.029	0.629	0.85	1.94	1.34	0.077	10.84%
12/14/2021	0.006	1.990	0.849	0.007	1.019	0.623	0.84	1.95	1.36	0.078	10.84%
12/15/2021	0.006	1.951	0.861	0.007	1.015	0.622	0.88	1.92	1.38	0.080	10.82%
12/16/2021	0.006	1.901	0.839	0.007	1.020	0.623	0.83	1.86	1.35	0.079	10.83%
12/17/2021	0.006	1.922	0.836	0.007	1.018	0.623	0.83	1.89	1.34	0.078	10.83%



## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/20/2021	0.006	1.947	0.806	0.007	1.007	0.613	0.79	1.93	1.31	0.086	10.83%
12/21/2021	0.005	2.046	0.803	0.007	1.007	0.615	0.73	2.03	1.30	0.088	10.86%
12/22/2021	0.006	2.204	0.769	0.007	0.998	0.616	0.80	2.21	1.25	0.083	10.89%
12/23/2021	0.006	2.178	0.782	0.007	0.994	0.615	0.82	2.19	1.27	0.083	10.89%
12/27/2021	0.006	2.175	0.781	0.007	0.994	0.615	0.81	2.19	1.27	0.084	10.89%
12/28/2021	0.006	2.235	0.744	0.007	0.984	0.610	0.84	2.27	1.22	0.084	10.89%
12/29/2021	0.006	2.267	0.726	0.007	0.987	0.613	0.83	2.30	1.18	0.084	10.89%
12/30/2021	0.006	2.272	0.709	0.007	0.986	0.613	0.83	2.30	1.16	0.083	10.89%
12/31/2021	0.006	2.267	0.710	0.007	0.986	0.613	0.83	2.30	1.16	0.083	10.89%
1/3/2022	0.006	2.283	0.698	0.007	0.987	0.613	0.85	2.31	1.14	0.085	10.89%
1/4/2022	0.006	2.299	0.703	0.007	0.985	0.613	0.89	2.33	1.15	0.087	10.87%
1/5/2022	0.006	2.276	0.697	0.007	0.986	0.608	0.88	2.31	1.15	0.086	10.87%
1/6/2022	0.006	2.197	0.637	0.007	0.984	0.606	0.92	2.23	1.05	0.083	10.88%
1/7/2022	0.007	2.212	0.651	0.007	0.985	0.608	0.93	2.24	1.07	0.083	10.88%
1/10/2022	0.007	2.216	0.654	0.007	0.987	0.609	0.94	2.24	1.07	0.079	10.90%
1/11/2022	0.007	2.214	0.654	0.007	0.987	0.608	0.95	2.24	1.08	0.079	10.90%
1/12/2022	0.007	2.214	0.652	0.007	0.986	0.608	0.96	2.25	1.07	0.080	10.90%
1/13/2022	0.005	2.175	0.686	0.007	0.965	0.594	0.77	2.25	1.15	0.085	10.69%
1/14/2022	0.006	2.102	0.778	0.007	0.965	0.598	0.84	2.18	1.30	0.087	10.67%
1/18/2022	0.006	2.121	0.769	0.007	0.967	0.597	0.82	2.19	1.29	0.090	10.67%
1/19/2022	0.005	2.124	0.728	0.007	0.961	0.592	0.70	2.21	1.23	0.088	10.62%
1/20/2022	0.005	2.194	0.706	0.007	0.962	0.592	0.76	2.28	1.19	0.092	10.60%
1/21/2022	0.005	2.238	0.703	0.007	0.961	0.593	0.72	2.33	1.19	0.091	10.61%
1/24/2022	0.005	2.236	0.686	0.007	0.953	0.594	0.69	2.35	1.15	0.093	10.61%
1/25/2022	0.004	2.302	0.608	0.007	0.949	0.593	0.62	2.43	1.03	0.091	10.55%
1/26/2022	0.004	2.214	0.709	0.007	0.938	0.589	0.53	2.36	1.20	0.095	10.45%
1/27/2022	0.003	2.322	0.726	0.007	0.944	0.588	0.47	2.46	1.23	0.098	10.44%
1/28/2022	0.003	2.374	0.721	0.007	0.945	0.587	0.51	2.51	1.23	0.100	10.42%
1/31/2022	0.003	2.508	0.646	0.007	0.955	0.589	0.42	2.63	1.10	0.106	10.41%
2/1/2022	0.003	2.440	0.665	0.007	0.955	0.587	0.39	2.56	1.13	0.103	10.39%
2/2/2022	-0.001	1.778	0.722	0.006	0.816	0.500	-0.10	2.18	1.44	0.126	8.85%
2/3/2022	-0.002	1.700	0.774	0.005	0.766	0.469	-0.45	2.22	1.65	0.144	8.33%
2/4/2022	-0.001	1.794	0.830	0.005	0.730	0.451	-0.14	2.46	1.84	0.167	8.02%
2/7/2022	0.001	1.786	0.969	0.005	0.695	0.431	0.23	2.57	2.25	0.191	7.65%
2/8/2022	0.001	1.799	0.959	0.005	0.693	0.429	0.21	2.60	2.23	0.151	7.63%
2/9/2022	0.001	1.798	0.954	0.005	0.691	0.429	0.24	2.60	2.22	0.152	7.63%
2/10/2022	0.001	1.793	0.950	0.005	0.688	0.427	0.23	2.60	2.22	0.146	7.61%
2/11/2022	0.002	1.718	0.921	0.005	0.690	0.429	0.35	2.49	2.15	0.138	7.65%
2/14/2022	0.002	1.730	0.924	0.005	0.684	0.428	0.40	2.53	2.16	0.140	7.64%
2/15/2022	0.002	1.725	0.933	0.005	0.682	0.426	0.38	2.53	2.19	0.136	7.63%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/16/2022	0.002	1.696	0.922	0.005	0.682	0.426	0.35	2.49	2.16	0.135	7.63%
2/17/2022	0.002	1.695	0.930	0.005	0.682	0.427	0.33	2.49	2.18	0.139	7.63%
2/18/2022	0.001	1.725	0.913	0.005	0.677	0.427	0.25	2.55	2.14	0.138	7.62%
2/22/2022	0.001	1.714	0.905	0.005	0.677	0.428	0.28	2.53	2.11	0.140	7.62%
2/23/2022	0.001	1.764	0.890	0.005	0.676	0.429	0.22	2.61	2.07	0.140	7.63%
2/24/2022	0.001	1.797	0.891	0.005	0.675	0.429	0.21	2.66	2.08	0.144	7.64%
2/25/2022	0.001	1.860	0.898	0.005	0.681	0.429	0.22	2.73	2.09	0.143	7.64%
2/28/2022	0.001	1.795	0.912	0.005	0.676	0.429	0.23	2.66	2.13	0.142	7.64%
3/1/2022	0.001	1.837	0.905	0.005	0.684	0.429	0.25	2.69	2.11	0.143	7.64%
3/2/2022	0.001	1.871	0.917	0.005	0.678	0.429	0.18	2.76	2.14	0.145	7.63%
3/3/2022	0.001	1.839	0.927	0.005	0.673	0.431	0.15	2.73	2.15	0.147	7.63%
3/4/2022	0.001	1.827	0.933	0.005	0.675	0.432	0.14	2.71	2.16	0.141	7.64%
3/7/2022	0.001	1.864	0.941	0.005	0.675	0.431	0.23	2.76	2.18	0.146	7.62%
3/8/2022	0.001	1.863	0.967	0.005	0.657	0.429	0.18	2.83	2.25	0.148	7.61%
3/9/2022	0.001	1.852	0.973	0.005	0.655	0.428	0.20	2.83	2.27	0.142	7.60%
3/10/2022	0.001	1.837	0.962	0.005	0.652	0.428	0.19	2.82	2.25	0.142	7.60%
3/11/2022	0.001	1.836	0.961	0.005	0.652	0.430	0.21	2.81	2.24	0.141	7.60%
3/14/2022	0.001	1.843	0.958	0.005	0.651	0.430	0.22	2.83	2.23	0.146	7.60%
3/15/2022	0.001	1.877	0.971	0.005	0.651	0.431	0.20	2.88	2.25	0.146	7.61%
3/16/2022	0.001	1.893	0.970	0.005	0.647	0.431	0.22	2.92	2.25	0.148	7.61%
3/17/2022	0.000	1.874	0.941	0.005	0.639	0.425	0.06	2.93	2.21	0.150	7.53%
3/18/2022	0.000	1.860	0.923	0.005	0.639	0.426	0.10	2.91	2.17	0.146	7.53%
3/21/2022	0.000	1.849	0.913	0.005	0.639	0.428	0.06	2.89	2.13	0.145	7.53%
3/22/2022	0.000	1.841	0.933	0.005	0.638	0.427	0.10	2.89	2.18	0.146	7.52%
3/23/2022	0.000	1.839	0.921	0.005	0.639	0.432	0.08	2.88	2.13	0.144	7.52%
3/24/2022	0.001	1.829	0.883	0.005	0.639	0.435	0.16	2.86	2.03	0.140	7.53%
3/25/2022	0.001	1.824	0.883	0.005	0.638	0.435	0.15	2.86	2.03	0.140	7.53%
3/28/2022	0.001	1.913	0.854	0.005	0.638	0.432	0.22	3.00	1.98	0.143	7.51%
3/29/2022	0.001	1.908	0.847	0.005	0.638	0.432	0.22	2.99	1.96	0.143	7.51%
3/30/2022	0.001	1.898	0.821	0.005	0.638	0.432	0.18	2.97	1.90	0.141	7.51%
3/31/2022	0.001	1.896	0.830	0.005	0.639	0.434	0.18	2.97	1.91	0.142	7.51%
4/1/2022	0.001	1.897	0.828	0.005	0.636	0.434	0.17	2.98	1.91	0.141	7.51%
4/4/2022	0.001	1.946	0.811	0.005	0.636	0.430	0.22	3.06	1.89	0.143	7.50%
4/5/2022	0.001	1.951	0.801	0.005	0.636	0.430	0.24	3.07	1.86	0.165	7.50%
4/6/2022	0.001	2.054	0.805	0.005	0.641	0.436	0.11	3.20	1.85	0.150	7.57%
4/7/2022	0.000	2.096	0.785	0.005	0.639	0.435	0.07	3.28	1.80	0.149	7.58%
4/8/2022	0.000	2.112	0.767	0.005	0.640	0.436	0.04	3.30	1.76	0.149	7.58%
4/11/2022	0.001	2.166	0.708	0.005	0.637	0.434	0.13	3.40	1.63	0.149	7.54%
4/12/2022	0.001	2.158	0.715	0.005	0.636	0.435	0.15	3.39	1.64	0.150	7.54%
4/13/2022	0.001	2.147	0.724	0.005	0.639	0.438	0.18	3.36	1.65	0.150	7.54%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
4/14/2022	0.001	2.159	0.720	0.005	0.638	0.436	0.20	3.38	1.65	0.151	7.53%
4/18/2022	0.001	2.158	0.720	0.005	0.637	0.436	0.22	3.39	1.65	0.152	7.53%
4/19/2022	0.001	2.149	0.730	0.005	0.635	0.431	0.21	3.38	1.69	0.159	7.53%
4/20/2022	0.001	1.983	0.776	0.005	0.639	0.435	0.11	3.10	1.78	0.147	7.60%
4/21/2022	0.000	1.992	0.748	0.005	0.641	0.437	-0.01	3.11	1.71	0.144	7.62%
4/22/2022	0.000	2.039	0.749	0.005	0.641	0.437	-0.09	3.18	1.71	0.144	7.61%
4/25/2022	0.000	1.879	0.772	0.005	0.637	0.438	-0.06	2.95	1.76	0.140	7.63%
4/26/2022	0.000	1.884	0.774	0.005	0.639	0.439	-0.03	2.95	1.76	0.137	7.63%
4/27/2022	0.000	1.878	0.781	0.005	0.639	0.440	-0.08	2.94	1.78	0.135	7.64%
4/28/2022	-0.001	1.860	0.798	0.005	0.638	0.439	-0.15	2.91	1.82	0.135	7.63%
4/29/2022	-0.001	1.774	0.841	0.005	0.628	0.437	-0.20	2.82	1.92	0.134	7.63%
5/2/2022	-0.001	1.649	0.865	0.005	0.619	0.438	-0.13	2.67	1.98	0.130	7.65%
5/3/2022	0.000	1.661	0.853	0.005	0.617	0.436	-0.08	2.69	1.96	0.131	7.63%
5/4/2022	0.000	1.662	0.851	0.005	0.618	0.440	-0.08	2.69	1.93	0.130	7.63%
5/5/2022	-0.001	1.584	0.872	0.005	0.611	0.440	-0.15	2.59	1.98	0.128	7.64%
5/6/2022	0.000	1.502	0.852	0.005	0.607	0.441	-0.08	2.48	1.93	0.125	7.65%
5/9/2022	0.000	1.510	0.840	0.005	0.604	0.434	-0.07	2.50	1.94	0.130	7.64%
5/10/2022	0.000	1.472	0.813	0.005	0.601	0.432	-0.02	2.45	1.88	0.129	7.64%
5/11/2022	0.000	1.485	0.804	0.005	0.604	0.434	-0.04	2.46	1.85	0.135	7.65%
5/12/2022	0.000	1.479	0.857	0.005	0.612	0.434	-0.09	2.42	1.98	0.130	7.67%
5/13/2022	0.000	1.485	0.853	0.005	0.611	0.429	-0.09	2.43	1.99	0.134	7.67%
5/16/2022	0.000	1.484	0.851	0.005	0.609	0.428	-0.10	2.44	1.99	0.135	7.67%
5/17/2022	0.000	1.460	0.866	0.005	0.609	0.428	-0.09	2.40	2.02	0.135	7.67%
5/18/2022	-0.001	1.505	0.858	0.005	0.608	0.427	-0.12	2.47	2.01	0.136	7.66%
5/19/2022	0.000	1.411	0.882	0.005	0.598	0.427	-0.10	2.36	2.06	0.137	7.67%
5/20/2022	0.000	1.378	0.915	0.005	0.597	0.427	-0.04	2.31	2.14	0.135	7.68%
5/23/2022	0.000	1.364	0.929	0.005	0.597	0.427	-0.02	2.28	2.17	0.138	7.68%
5/24/2022	0.000	1.437	0.896	0.005	0.597	0.428	0.06	2.41	2.09	0.140	7.69%
5/25/2022	0.000	1.446	0.904	0.005	0.597	0.429	0.02	2.42	2.11	0.140	7.69%
5/26/2022	0.000	1.463	0.894	0.005	0.596	0.428	0.01	2.45	2.09	0.139	7.69%
5/27/2022	-0.001	1.385	0.917	0.005	0.591	0.427	-0.12	2.34	2.15	0.137	7.69%
5/31/2022	-0.001	1.374	0.920	0.005	0.589	0.427	-0.10	2.33	2.15	0.147	7.69%
6/1/2022	0.000	1.398	0.854	0.005	0.594	0.429	-0.03	2.35	1.99	0.139	7.75%
6/2/2022	-0.001	1.412	0.860	0.005	0.596	0.431	-0.16	2.37	2.00	0.131	7.78%
6/3/2022	-0.001	1.418	0.857	0.005	0.590	0.429	-0.19	2.40	2.00	0.133	7.77%
6/6/2022	-0.001	1.343	0.899	0.005	0.586	0.428	-0.14	2.29	2.10	0.130	7.79%
6/7/2022	-0.001	1.343	0.894	0.005	0.589	0.433	-0.18	2.28	2.06	0.129	7.79%
6/8/2022	-0.001	1.342	0.894	0.005	0.588	0.431	-0.19	2.28	2.07	0.129	7.79%
6/9/2022	-0.001	1.324	0.913	0.005	0.587	0.431	-0.16	2.26	2.12	0.133	7.78%
6/10/2022	-0.001	1.323	0.931	0.005	0.587	0.431	-0.16	2.25	2.16	0.135	7.78%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/13/2022	-0.001	1.170	0.966	0.005	0.583	0.431	-0.18	2.01	2.24	0.146	7.76%
6/14/2022	-0.001	1.286	0.968	0.005	0.577	0.431	-0.25	2.23	2.24	0.146	7.77%
6/15/2022	-0.001	1.273	0.973	0.005	0.578	0.433	-0.16	2.20	2.25	0.147	7.79%
6/16/2022	-0.001	1.285	0.997	0.005	0.576	0.431	-0.21	2.23	2.32	0.148	7.75%
6/17/2022	-0.001	1.211	1.023	0.005	0.569	0.431	-0.15	2.13	2.38	0.147	7.76%
6/21/2022	-0.001	1.253	0.986	0.005	0.566	0.423	-0.20	2.21	2.33	0.147	7.76%
6/22/2022	-0.002	1.175	0.993	0.005	0.565	0.422	-0.34	2.08	2.35	0.148	7.74%
6/23/2022	-0.001	1.132	1.035	0.005	0.563	0.420	-0.26	2.01	2.46	0.139	7.75%
6/24/2022	-0.001	1.130	1.037	0.005	0.562	0.415	-0.27	2.01	2.50	0.139	7.75%
6/27/2022	-0.002	1.067	1.049	0.005	0.556	0.415	-0.34	1.92	2.53	0.136	7.76%
6/28/2022	-0.001	1.063	1.057	0.005	0.556	0.415	-0.29	1.91	2.55	0.137	7.75%
6/29/2022	-0.002	1.063	1.053	0.005	0.554	0.414	-0.36	1.92	2.55	0.138	7.73%
6/30/2022	-0.002	1.061	1.055	0.005	0.553	0.413	-0.33	1.92	2.56	0.139	7.73%
7/1/2022	-0.002	1.072	1.051	0.005	0.553	0.413	-0.38	1.94	2.54	0.140	7.73%
7/5/2022	-0.002	1.077	1.015	0.005	0.554	0.414	-0.48	1.94	2.45	0.134	7.75%
7/6/2022	-0.003	1.082	1.006	0.005	0.554	0.412	-0.51	1.95	2.44	0.137	7.75%
7/7/2022	-0.003	1.071	1.018	0.005	0.555	0.413	-0.62	1.93	2.47	0.134	7.76%
7/8/2022	-0.003	1.043	1.036	0.005	0.555	0.413	-0.68	1.88	2.51	0.135	7.75%
7/11/2022	-0.004	1.107	0.992	0.005	0.555	0.413	-0.79	1.99	2.40	0.136	7.73%
7/12/2022	-0.003	1.161	0.980	0.005	0.553	0.411	-0.69	2.10	2.39	0.140	7.69%
7/13/2022	-0.004	1.147	0.990	0.005	0.552	0.410	-0.72	2.08	2.41	0.141	7.68%
7/14/2022	-0.004	1.144	1.001	0.005	0.551	0.410	-0.76	2.08	2.44	0.142	7.67%
7/15/2022	-0.003	1.159	0.980	0.005	0.551	0.409	-0.71	2.10	2.39	0.142	7.67%
7/18/2022	-0.003	1.125	0.997	0.005	0.545	0.406	-0.59	2.06	2.46	0.144	7.60%
7/19/2022	-0.003	1.112	1.003	0.005	0.547	0.406	-0.55	2.03	2.47	0.144	7.60%
7/20/2022	-0.003	1.137	0.977	0.005	0.550	0.409	-0.60	2.07	2.39	0.145	7.60%
7/21/2022	-0.003	1.096	0.985	0.005	0.550	0.408	-0.68	1.99	2.41	0.142	7.59%
7/22/2022	-0.004	1.002	1.012	0.005	0.538	0.399	-0.93	1.86	2.54	0.143	7.42%
7/25/2022	-0.005	0.999	1.011	0.005	0.536	0.397	-0.99	1.86	2.55	0.145	7.41%
7/26/2022	-0.005	1.008	1.008	0.005	0.537	0.398	-1.01	1.88	2.54	0.144	7.41%
7/27/2022	-0.005	0.999	1.012	0.005	0.537	0.399	-0.99	1.86	2.53	0.154	7.41%
7/28/2022	-0.006	0.824	1.089	0.005	0.537	0.402	-1.20	1.53	2.71	0.141	7.48%
7/29/2022	-0.006	0.764	1.116	0.005	0.538	0.406	-1.31	1.42	2.75	0.133	7.51%
8/1/2022	-0.006	0.741	1.130	0.005	0.533	0.403	-1.33	1.39	2.80	0.104	7.49%
8/2/2022	-0.004	0.682	1.134	0.005	0.506	0.382	-0.96	1.35	2.97	0.109	7.12%
8/3/2022	-0.005	0.658	1.153	0.004	0.502	0.379	-1.02	1.31	3.04	0.107	7.08%
8/4/2022	-0.005	0.698	1.069	0.005	0.504	0.378	-1.15	1.39	2.83	0.102	7.10%
8/5/2022	-0.006	0.782	0.986	0.005	0.505	0.378	-1.27	1.55	2.61	0.096	7.12%
8/8/2022	-0.006	0.795	0.950	0.004	0.501	0.375	-1.39	1.59	2.53	0.101	7.08%
8/9/2022	-0.006	0.789	0.960	0.005	0.503	0.377	-1.26	1.57	2.55	0.094	7.10%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/10/2022	-0.006	0.848	0.890	0.005	0.506	0.380	-1.27	1.68	2.34	0.089	7.10%
8/11/2022	-0.006	0.795	0.914	0.005	0.506	0.382	-1.37	1.57	2.39	0.088	7.10%
8/12/2022	-0.006	0.770	0.938	0.005	0.509	0.386	-1.38	1.51	2.43	0.089	7.10%
8/15/2022	-0.007	0.790	0.916	0.004	0.506	0.385	-1.46	1.56	2.38	0.089	7.08%
8/16/2022	-0.007	0.797	0.907	0.004	0.506	0.384	-1.50	1.58	2.36	0.089	7.07%
8/17/2022	-0.007	0.816	0.889	0.004	0.505	0.384	-1.46	1.62	2.32	0.126	7.07%
8/18/2022	-0.005	0.732	0.893	0.005	0.522	0.397	-1.09	1.40	2.25	0.077	7.25%
8/19/2022	-0.005	0.755	0.880	0.005	0.521	0.396	-1.09	1.45	2.22	0.077	7.25%
8/22/2022	-0.005	0.773	0.865	0.005	0.522	0.399	-1.09	1.48	2.17	0.077	7.25%
8/23/2022	-0.005	0.776	0.861	0.005	0.520	0.399	-1.10	1.49	2.16	0.077	7.25%
8/24/2022	-0.005	0.803	0.813	0.005	0.520	0.401	-1.15	1.55	2.03	0.079	7.23%
8/25/2022	-0.005	0.778	0.846	0.005	0.521	0.402	-1.09	1.49	2.11	0.074	7.25%
8/26/2022	-0.004	0.752	0.889	0.004	0.490	0.378	-0.82	1.54	2.35	0.092	6.84%
8/29/2022	-0.003	0.646	0.882	0.004	0.488	0.379	-0.60	1.32	2.33	0.087	6.85%
8/30/2022	-0.002	0.752	0.841	0.004	0.483	0.374	-0.52	1.56	2.25	0.085	6.76%
8/31/2022	-0.002	0.763	0.830	0.004	0.481	0.373	-0.41	1.59	2.23	0.086	6.74%
9/1/2022	-0.002	0.785	0.811	0.004	0.479	0.372	-0.49	1.64	2.18	0.086	6.73%
9/2/2022	-0.002	0.781	0.820	0.004	0.476	0.369	-0.42	1.64	2.23	0.088	6.70%
9/6/2022	-0.002	0.785	0.814	0.004	0.476	0.368	-0.46	1.65	2.21	0.102	6.70%
9/7/2022	-0.001	0.825	0.756	0.004	0.479	0.371	-0.25	1.72	2.04	0.083	6.76%
9/8/2022	-0.001	0.819	0.757	0.004	0.479	0.370	-0.21	1.71	2.05	0.083	6.75%
9/9/2022	-0.001	0.832	0.740	0.004	0.478	0.367	-0.22	1.74	2.02	0.090	6.75%
9/12/2022	-0.001	0.894	0.712	0.004	0.477	0.367	-0.21	1.87	1.94	0.085	6.76%
9/13/2022	-0.001	0.904	0.708	0.004	0.476	0.366	-0.23	1.90	1.93	0.090	6.75%
9/14/2022	-0.001	0.940	0.683	0.004	0.473	0.367	-0.18	1.99	1.86	0.093	6.74%
9/15/2022	0.000	0.910	0.705	0.004	0.471	0.365	-0.02	1.93	1.93	0.091	6.71%
9/16/2022	0.000	0.925	0.690	0.004	0.469	0.364	-0.09	1.97	1.90	0.090	6.71%
9/19/2022	0.000	0.925	0.691	0.004	0.469	0.364	-0.09	1.97	1.90	0.090	6.71%
9/20/2022	-0.001	0.966	0.660	0.004	0.467	0.362	-0.21	2.07	1.82	0.135	6.68%
9/21/2022	0.000	0.866	0.704	0.004	0.481	0.374	0.02	1.80	1.88	0.080	6.89%
9/22/2022	0.000	0.888	0.680	0.004	0.480	0.373	-0.07	1.85	1.82	0.142	6.87%
9/23/2022	0.001	0.762	0.737	0.005	0.501	0.389	0.23	1.52	1.89	0.093	7.16%
9/26/2022	0.001	0.741	0.726	0.005	0.499	0.388	0.12	1.48	1.87	0.091	7.14%
9/27/2022	0.001	0.709	0.735	0.005	0.502	0.391	0.17	1.41	1.88	0.085	7.16%
9/28/2022	0.000	0.686	0.760	0.005	0.499	0.387	0.08	1.38	1.96	0.088	7.13%
9/29/2022	0.000	0.698	0.692	0.005	0.501	0.387	0.00	1.39	1.79	0.080	7.15%
9/30/2022	0.000	0.698	0.688	0.005	0.499	0.386	0.04	1.40	1.78	0.080	7.15%
10/3/2022	0.000	0.710	0.681	0.005	0.499	0.387	0.02	1.42	1.76	0.080	7.15%
10/4/2022	0.000	0.703	0.674	0.005	0.501	0.391	0.01	1.40	1.73	0.079	7.15%
10/5/2022	0.000	0.673	0.657	0.005	0.497	0.390	0.04	1.35	1.69	0.076	7.13%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/6/2022	0.000	0.657	0.665	0.005	0.498	0.390	-0.01	1.32	1.71	0.077	7.13%
10/7/2022	0.000	0.683	0.636	0.005	0.497	0.390	0.10	1.37	1.63	0.077	7.12%
10/10/2022	0.000	0.695	0.635	0.005	0.496	0.390	0.07	1.40	1.63	0.083	7.12%
10/11/2022	0.000	0.713	0.629	0.005	0.497	0.391	0.03	1.44	1.61	0.077	7.14%
10/12/2022	0.000	0.722	0.622	0.005	0.496	0.391	0.02	1.45	1.59	0.077	7.14%
10/13/2022	0.000	0.721	0.623	0.005	0.496	0.390	0.01	1.45	1.60	0.078	7.14%
10/14/2022	0.000	0.719	0.622	0.005	0.494	0.390	-0.03	1.46	1.60	0.078	7.13%
10/17/2022	0.000	0.734	0.621	0.005	0.491	0.389	0.02	1.49	1.60	0.079	7.12%
10/18/2022	0.000	0.736	0.602	0.005	0.490	0.389	0.04	1.50	1.55	0.079	7.11%
10/19/2022	0.000	0.708	0.620	0.005	0.490	0.390	-0.01	1.45	1.59	0.079	7.12%
10/20/2022	0.000	0.698	0.645	0.005	0.488	0.386	0.04	1.43	1.67	0.081	7.10%
10/21/2022	0.000	0.698	0.643	0.005	0.488	0.386	0.09	1.43	1.66	0.081	7.10%
10/24/2022	0.000	0.698	0.643	0.005	0.487	0.386	0.09	1.43	1.66	0.081	7.10%
10/25/2022	0.000	0.692	0.641	0.005	0.487	0.387	0.06	1.42	1.66	0.080	7.11%
10/26/2022	0.000	0.687	0.636	0.005	0.486	0.387	0.02	1.41	1.64	0.080	7.11%
10/27/2022	0.000	0.670	0.652	0.005	0.485	0.385	0.06	1.38	1.69	0.080	7.11%
10/28/2022	0.000	0.674	0.641	0.005	0.485	0.386	0.09	1.39	1.66	0.077	7.12%
10/31/2022	0.001	0.672	0.655	0.005	0.485	0.384	0.13	1.39	1.71	0.078	7.12%
11/1/2022	0.001	0.677	0.651	0.005	0.485	0.384	0.15	1.40	1.70	0.078	7.11%
11/2/2022	0.000	0.692	0.630	0.005	0.484	0.383	0.09	1.43	1.64	0.077	7.11%
11/3/2022	0.000	0.702	0.598	0.004	0.471	0.375	-0.10	1.49	1.59	0.079	6.96%
11/4/2022	0.000	0.697	0.609	0.004	0.472	0.376	-0.06	1.48	1.62	0.077	6.97%
11/7/2022	-0.002	0.443	0.850	0.004	0.438	0.350	-0.45	1.01	2.43	0.100	6.46%
11/8/2022	-0.002	0.337	0.944	0.004	0.440	0.353	-0.59	0.77	2.67	0.103	6.43%
11/9/2022	-0.002	0.339	0.945	0.004	0.440	0.353	-0.57	0.77	2.68	0.103	6.43%
11/10/2022	-0.002	0.354	0.919	0.004	0.435	0.351	-0.44	0.81	2.62	0.103	6.38%
11/11/2022	-0.002	0.291	0.926	0.004	0.423	0.348	-0.38	0.69	2.66	0.105	6.35%
11/14/2022	-0.001	0.313	0.915	0.004	0.423	0.348	-0.36	0.74	2.63	0.108	6.36%
11/15/2022	-0.001	0.284	0.937	0.004	0.424	0.349	-0.21	0.67	2.69	0.101	6.38%
11/16/2022	0.000	0.289	0.927	0.004	0.420	0.346	-0.12	0.69	2.68	0.116	6.33%
11/17/2022	-0.001	0.306	0.929	0.004	0.424	0.349	-0.26	0.72	2.66	0.102	6.39%
11/18/2022	0.000	0.264	0.954	0.004	0.408	0.336	0.00	0.65	2.84	0.112	6.15%
11/21/2022	0.000	0.261	0.957	0.004	0.409	0.337	-0.04	0.64	2.84	0.108	6.16%
11/22/2022	-0.001	0.284	0.938	0.004	0.407	0.335	-0.15	0.70	2.80	0.109	6.13%
11/23/2022	-0.001	0.284	0.938	0.004	0.408	0.336	-0.15	0.70	2.79	0.105	6.15%
11/25/2022	0.000	0.293	0.931	0.004	0.408	0.336	-0.12	0.72	2.77	0.106	6.15%
11/28/2022	-0.001	0.284	0.934	0.004	0.406	0.334	-0.18	0.70	2.79	0.106	6.12%
11/29/2022	-0.001	0.256	0.955	0.004	0.410	0.337	-0.17	0.62	2.83	0.106	6.12%
11/30/2022	0.000	0.267	0.950	0.004	0.410	0.337	-0.12	0.65	2.82	0.106	6.12%
12/1/2022	-0.001	0.253	0.949	0.004	0.412	0.337	-0.14	0.61	2.81	0.106	6.12%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/2/2022	0.000	0.253	0.929	0.004	0.411	0.337	-0.09	0.62	2.76	0.105	6.10%
12/5/2022	0.000	0.249	0.938	0.004	0.412	0.337	-0.04	0.61	2.78	0.107	6.11%
12/6/2022	0.000	0.263	0.930	0.004	0.412	0.338	-0.04	0.64	2.75	0.104	6.11%
12/7/2022	0.000	0.292	0.903	0.004	0.416	0.342	0.01	0.70	2.64	0.111	6.11%
12/8/2022	0.000	0.267	0.911	0.004	0.417	0.344	0.05	0.64	2.65	0.101	6.13%
12/9/2022	0.000	0.274	0.905	0.004	0.417	0.344	0.05	0.66	2.63	0.099	6.13%
12/12/2022	0.001	0.294	0.868	0.004	0.416	0.343	0.14	0.71	2.53	0.103	6.11%
12/13/2022	0.001	0.340	0.842	0.004	0.418	0.346	0.25	0.81	2.44	0.099	6.13%
12/14/2022	0.001	0.344	0.843	0.004	0.422	0.348	0.28	0.82	2.42	0.098	6.13%
12/15/2022	0.001	0.361	0.833	0.004	0.421	0.347	0.22	0.86	2.40	0.108	6.12%
12/16/2022	0.001	0.411	0.833	0.004	0.420	0.348	0.19	0.98	2.39	0.104	6.14%
12/19/2022	0.001	0.409	0.831	0.004	0.420	0.348	0.22	0.97	2.39	0.103	6.14%
12/20/2022	0.001	0.379	0.858	0.004	0.425	0.353	0.25	0.89	2.43	0.104	6.13%
12/21/2022	0.001	0.341	0.863	0.004	0.420	0.348	0.38	0.81	2.48	0.104	6.06%
12/22/2022	0.001	0.208	0.932	0.004	0.416	0.344	0.16	0.50	2.71	0.112	5.97%
12/23/2022	0.000	0.275	0.887	0.004	0.418	0.346	0.06	0.66	2.56	0.103	6.01%
12/27/2022	0.000	0.275	0.887	0.004	0.419	0.347	0.06	0.66	2.56	0.108	6.02%
12/28/2022	0.000	0.157	0.997	0.004	0.423	0.349	-0.11	0.37	2.86	0.104	6.03%
12/29/2022	0.000	0.175	0.982	0.004	0.422	0.348	-0.09	0.42	2.82	0.105	6.02%
12/30/2022	0.000	0.176	0.988	0.004	0.421	0.348	-0.03	0.42	2.84	0.106	6.02%
1/3/2023	0.000	0.175	0.989	0.004	0.421	0.348	-0.02	0.41	2.84	0.108	6.02%
1/4/2023	0.000	0.166	1.001	0.004	0.422	0.349	-0.09	0.39	2.87	0.110	6.03%
1/5/2023	0.000	0.165	1.002	0.004	0.421	0.348	-0.12	0.39	2.88	0.107	6.01%
1/6/2023	-0.001	0.153	1.019	0.004	0.422	0.350	-0.17	0.36	2.91	0.108	6.01%
1/9/2023	-0.001	0.109	1.076	0.004	0.419	0.351	-0.30	0.26	3.06	0.111	6.00%
1/10/2023	-0.001	0.138	1.047	0.004	0.416	0.348	-0.25	0.33	3.01	0.115	6.00%
1/11/2023	-0.001	0.125	1.069	0.004	0.416	0.347	-0.19	0.30	3.08	0.130	6.00%
1/12/2023	0.000	0.188	1.033	0.004	0.420	0.351	-0.04	0.45	2.94	0.115	6.06%
1/13/2023	0.000	0.191	1.021	0.004	0.420	0.351	-0.12	0.45	2.91	0.112	6.07%
1/17/2023	0.000	0.195	1.016	0.004	0.422	0.353	-0.12	0.46	2.88	0.112	6.07%
1/18/2023	0.000	0.198	1.005	0.004	0.422	0.353	-0.06	0.47	2.84	0.110	6.06%
1/19/2023	0.000	0.197	1.006	0.004	0.421	0.353	-0.06	0.47	2.85	0.110	6.06%
1/20/2023	0.000	0.218	0.966	0.004	0.421	0.356	-0.02	0.52	2.72	0.107	6.05%
1/23/2023	0.000	0.242	0.955	0.004	0.420	0.355	0.02	0.58	2.69	0.107	6.06%
1/24/2023	0.001	0.245	0.943	0.004	0.418	0.354	0.15	0.59	2.66	0.143	6.04%
1/25/2023	0.001	0.240	0.944	0.004	0.420	0.355	0.16	0.57	2.66	0.142	6.05%
1/26/2023	0.000	0.242	0.935	0.004	0.420	0.355	0.01	0.58	2.64	0.138	6.05%
1/27/2023	0.000	0.252	0.934	0.004	0.418	0.354	-0.01	0.60	2.64	0.139	6.05%
1/30/2023	0.000	0.258	0.929	0.004	0.419	0.355	0.03	0.62	2.62	0.141	6.05%
1/31/2023	0.000	0.269	0.924	0.004	0.419	0.356	0.02	0.64	2.60	0.139	6.06%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/1/2023	0.000	0.273	0.916	0.004	0.418	0.356	0.01	0.65	2.57	0.137	6.05%
2/2/2023	0.000	0.276	0.886	0.004	0.416	0.355	-0.04	0.66	2.50	0.139	6.04%
2/3/2023	0.000	0.334	0.842	0.004	0.416	0.355	0.04	0.80	2.37	0.131	6.06%
2/6/2023	0.000	0.337	0.841	0.004	0.417	0.357	0.02	0.81	2.36	0.133	6.06%
2/7/2023	0.000	0.348	0.840	0.004	0.418	0.357	-0.03	0.83	2.35	0.132	6.07%
2/8/2023	0.000	0.337	0.844	0.004	0.416	0.356	-0.09	0.81	2.37	0.131	6.06%
2/9/2023	0.000	0.331	0.848	0.004	0.417	0.356	-0.05	0.80	2.38	0.133	6.05%
2/10/2023	0.000	0.340	0.843	0.004	0.417	0.356	-0.08	0.82	2.37	0.132	6.06%
2/13/2023	0.000	0.341	0.836	0.004	0.417	0.357	-0.11	0.82	2.35	0.132	6.06%
2/14/2023	-0.001	0.328	0.871	0.004	0.415	0.356	-0.28	0.79	2.45	0.135	6.03%
2/15/2023	-0.001	0.312	0.879	0.004	0.416	0.356	-0.29	0.75	2.47	0.133	6.03%
2/16/2023	-0.001	0.328	0.861	0.004	0.417	0.357	-0.24	0.79	2.41	0.132	6.03%
2/17/2023	-0.001	0.326	0.865	0.004	0.417	0.358	-0.21	0.78	2.42	0.133	6.03%
2/21/2023	-0.001	0.318	0.873	0.004	0.416	0.356	-0.19	0.77	2.45	0.136	6.03%
2/22/2023	-0.001	0.319	0.867	0.004	0.415	0.356	-0.18	0.77	2.43	0.132	6.03%
2/23/2023	-0.001	0.319	0.871	0.004	0.415	0.356	-0.20	0.77	2.44	0.132	6.03%
2/24/2023	0.000	0.295	0.881	0.004	0.414	0.355	-0.11	0.71	2.48	0.133	6.01%
2/27/2023	0.000	0.284	0.872	0.004	0.413	0.353	-0.05	0.69	2.47	0.131	6.00%
2/28/2023	0.000	0.277	0.857	0.004	0.412	0.353	-0.13	0.67	2.43	0.128	5.98%
3/1/2023	0.000	0.282	0.855	0.004	0.413	0.353	-0.13	0.68	2.42	0.128	5.98%
3/2/2023	0.000	0.279	0.858	0.004	0.413	0.353	-0.12	0.67	2.43	0.129	5.98%
3/3/2023	0.000	0.259	0.867	0.004	0.413	0.352	-0.05	0.63	2.46	0.130	5.97%
3/6/2023	0.000	0.267	0.866	0.004	0.414	0.353	-0.03	0.65	2.46	0.129	5.98%
3/7/2023	0.000	0.279	0.841	0.004	0.413	0.352	0.06	0.68	2.39	0.129	5.96%
3/8/2023	0.000	0.288	0.843	0.004	0.412	0.352	0.01	0.70	2.40	0.129	5.96%
3/9/2023	0.000	0.234	0.872	0.004	0.416	0.352	0.05	0.56	2.48	0.128	5.95%
3/10/2023	0.000	0.235	0.867	0.004	0.416	0.353	0.05	0.56	2.46	0.128	5.95%
3/13/2023	0.000	0.229	0.863	0.004	0.417	0.353	0.03	0.55	2.44	0.123	5.96%
3/14/2023	0.000	0.222	0.871	0.004	0.413	0.348	0.02	0.54	2.50	0.123	5.96%
3/15/2023	0.000	0.220	0.866	0.004	0.412	0.348	0.05	0.53	2.49	0.122	5.96%
3/16/2023	0.001	0.205	0.862	0.004	0.410	0.347	0.15	0.50	2.49	0.122	5.93%
3/17/2023	0.000	0.190	0.864	0.004	0.409	0.346	0.12	0.46	2.50	0.121	5.92%
3/20/2023	0.000	0.188	0.852	0.004	0.410	0.347	0.09	0.46	2.45	0.114	5.93%
3/21/2023	0.000	0.186	0.841	0.004	0.410	0.348	0.04	0.45	2.42	0.113	5.93%
3/22/2023	0.000	0.175	0.852	0.004	0.407	0.347	0.03	0.43	2.46	0.119	5.93%
3/23/2023	0.000	0.187	0.863	0.004	0.409	0.348	-0.03	0.46	2.48	0.115	5.95%
3/24/2023	0.000	0.185	0.865	0.004	0.409	0.348	-0.02	0.45	2.49	0.114	5.95%
3/27/2023	0.000	0.180	0.881	0.004	0.408	0.348	-0.07	0.44	2.53	0.116	5.94%
3/28/2023	0.000	0.177	0.881	0.004	0.408	0.348	-0.09	0.43	2.53	0.116	5.94%
3/29/2023	0.000	0.181	0.878	0.004	0.411	0.351	-0.11	0.44	2.50	0.115	5.94%



## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/30/2023	0.000	0.182	0.878	0.004	0.410	0.351	-0.11	0.44	2.50	0.115	5.94%
3/31/2023	0.000	0.185	0.885	0.004	0.409	0.351	-0.06	0.45	2.52	0.116	5.94%
4/3/2023	0.000	0.184	0.880	0.004	0.409	0.351	-0.04	0.45	2.51	0.115	5.94%
4/4/2023	0.000	0.166	0.890	0.004	0.410	0.351	-0.01	0.40	2.53	0.115	5.93%
4/5/2023	0.000	0.166	0.890	0.004	0.411	0.353	-0.02	0.40	2.52	0.115	5.93%
4/6/2023	0.000	0.171	0.885	0.004	0.410	0.353	-0.03	0.42	2.51	0.114	5.94%
4/10/2023	0.001	0.140	0.858	0.004	0.401	0.345	0.18	0.35	2.49	0.117	5.80%
4/11/2023	0.001	0.088	0.898	0.004	0.401	0.344	0.21	0.22	2.61	0.117	5.79%
4/12/2023	0.001	0.082	0.907	0.004	0.401	0.344	0.28	0.20	2.64	0.118	5.78%
4/13/2023	0.001	0.082	0.907	0.004	0.401	0.344	0.29	0.20	2.64	0.119	5.78%
4/14/2023	0.001	0.082	0.904	0.004	0.401	0.344	0.33	0.20	2.63	0.118	5.78%
4/17/2023	0.001	0.080	0.906	0.004	0.401	0.344	0.31	0.20	2.64	0.121	5.78%
4/18/2023	0.001	0.075	0.914	0.004	0.401	0.345	0.36	0.19	2.65	0.118	5.79%
4/19/2023	0.001	0.072	0.914	0.004	0.401	0.345	0.37	0.18	2.65	0.118	5.79%
4/20/2023	0.001	0.085	0.899	0.004	0.404	0.349	0.36	0.21	2.57	0.117	5.79%
4/21/2023	0.002	0.156	0.869	0.004	0.401	0.346	0.48	0.39	2.51	0.122	5.73%
4/24/2023	0.002	0.147	0.877	0.004	0.398	0.343	0.59	0.37	2.56	0.126	5.69%
4/25/2023	0.002	0.138	0.859	0.004	0.397	0.342	0.65	0.35	2.51	0.124	5.67%
4/26/2023	0.002	0.178	0.855	0.004	0.397	0.342	0.56	0.45	2.50	0.125	5.67%
4/27/2023	0.002	0.189	0.835	0.004	0.396	0.341	0.49	0.48	2.45	0.126	5.65%
4/28/2023	0.002	0.218	0.818	0.004	0.393	0.339	0.54	0.55	2.41	0.127	5.64%
5/1/2023	0.002	0.224	0.814	0.004	0.393	0.340	0.58	0.57	2.40	0.127	5.64%
5/2/2023	0.002	0.244	0.799	0.004	0.398	0.342	0.59	0.61	2.34	0.129	5.64%
5/3/2023	0.002	0.266	0.793	0.004	0.403	0.343	0.56	0.66	2.31	0.126	5.65%
5/4/2023	0.002	0.263	0.798	0.004	0.402	0.343	0.58	0.66	2.33	0.127	5.65%
5/5/2023	0.002	0.262	0.799	0.004	0.402	0.343	0.58	0.65	2.33	0.126	5.65%
5/8/2023	0.002	0.272	0.793	0.004	0.404	0.343	0.58	0.67	2.31	0.128	5.65%
5/9/2023	0.002	0.296	0.787	0.004	0.405	0.343	0.60	0.73	2.29	0.144	5.65%
5/10/2023	0.002	0.299	0.783	0.004	0.409	0.351	0.60	0.73	2.23	0.140	5.67%
5/11/2023	0.002	0.299	0.776	0.004	0.409	0.353	0.62	0.73	2.20	0.137	5.67%
5/12/2023	0.002	0.304	0.767	0.004	0.408	0.353	0.67	0.74	2.18	0.140	5.66%
5/15/2023	0.003	0.343	0.676	0.004	0.406	0.354	0.76	0.85	1.91	0.133	5.62%
5/16/2023	0.003	0.346	0.671	0.004	0.409	0.359	0.75	0.85	1.87	0.134	5.63%
5/17/2023	0.002	0.318	0.674	0.004	0.408	0.356	0.65	0.78	1.89	0.130	5.62%
5/18/2023	0.002	0.346	0.649	0.004	0.406	0.355	0.57	0.85	1.83	0.131	5.60%
5/19/2023	0.002	0.327	0.634	0.004	0.404	0.354	0.47	0.81	1.79	0.127	5.59%
5/22/2023	0.002	0.345	0.622	0.004	0.408	0.354	0.43	0.85	1.76	0.128	5.59%
5/23/2023	0.001	0.376	0.592	0.004	0.408	0.354	0.40	0.92	1.67	0.126	5.58%
5/24/2023	0.001	0.384	0.582	0.004	0.406	0.354	0.36	0.94	1.64	0.126	5.57%
5/25/2023	0.001	0.338	0.604	0.004	0.407	0.353	0.29	0.83	1.71	0.127	5.55%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/26/2023	0.001	0.305	0.617	0.004	0.402	0.348	0.34	0.76	1.77	0.126	5.54%
5/30/2023	0.001	0.263	0.639	0.004	0.401	0.347	0.24	0.66	1.84	0.125	5.53%
5/31/2023	0.001	0.302	0.623	0.004	0.403	0.347	0.27	0.75	1.80	0.126	5.52%
6/1/2023	0.001	0.298	0.616	0.004	0.402	0.346	0.24	0.74	1.78	0.124	5.52%
6/2/2023	0.000	0.228	0.725	0.004	0.395	0.343	0.03	0.58	2.12	0.135	5.43%
6/5/2023	0.001	0.231	0.703	0.003	0.391	0.339	0.20	0.59	2.08	0.136	5.37%
6/6/2023	0.001	0.217	0.710	0.003	0.394	0.340	0.15	0.55	2.09	0.136	5.37%
6/7/2023	0.000	0.276	0.668	0.003	0.397	0.341	0.12	0.70	1.96	0.137	5.36%
6/8/2023	0.001	0.299	0.641	0.003	0.399	0.344	0.19	0.75	1.86	0.136	5.36%
6/9/2023	0.001	0.306	0.632	0.003	0.399	0.346	0.20	0.77	1.82	0.134	5.36%
6/12/2023	0.001	0.288	0.645	0.003	0.401	0.347	0.22	0.72	1.86	0.135	5.36%
6/13/2023	0.001	0.292	0.603	0.003	0.400	0.348	0.31	0.73	1.73	0.133	5.35%
6/14/2023	0.001	0.335	0.632	0.003	0.399	0.347	0.22	0.84	1.82	0.138	5.32%
6/15/2023	0.002	0.196	0.594	0.003	0.393	0.340	0.45	0.50	1.75	0.131	5.22%
6/16/2023	0.001	0.213	0.577	0.003	0.392	0.339	0.34	0.54	1.70	0.131	5.20%
6/20/2023	0.001	0.214	0.545	0.003	0.390	0.338	0.24	0.55	1.61	0.129	5.18%
6/21/2023	0.001	0.219	0.543	0.003	0.395	0.339	0.24	0.55	1.60	0.129	5.18%
6/22/2023	0.001	0.210	0.550	0.003	0.401	0.348	0.27	0.53	1.58	0.128	5.18%
6/23/2023	0.001	0.224	0.554	0.003	0.401	0.348	0.32	0.56	1.59	0.130	5.18%
6/26/2023	0.001	0.285	0.497	0.003	0.400	0.348	0.19	0.71	1.43	0.133	5.15%
6/27/2023	0.000	0.299	0.477	0.003	0.403	0.355	0.10	0.74	1.34	0.129	5.15%
6/28/2023	0.000	0.352	0.449	0.003	0.403	0.351	0.15	0.87	1.28	0.129	5.15%
6/29/2023	0.000	0.355	0.446	0.003	0.403	0.351	0.12	0.88	1.27	0.129	5.15%
6/30/2023	0.000	0.346	0.437	0.003	0.402	0.351	0.15	0.86	1.25	0.129	5.15%
7/3/2023	0.001	0.358	0.434	0.003	0.403	0.352	0.17	0.89	1.23	0.130	5.15%
7/5/2023	0.001	0.354	0.423	0.003	0.402	0.351	0.28	0.88	1.20	0.149	5.15%
7/6/2023	0.001	0.339	0.466	0.003	0.401	0.352	0.37	0.84	1.32	0.151	5.13%
7/7/2023	0.001	0.325	0.466	0.003	0.404	0.355	0.45	0.80	1.31	0.149	5.14%
7/10/2023	0.002	0.308	0.487	0.003	0.402	0.353	0.52	0.77	1.38	0.151	5.12%
7/11/2023	0.002	0.320	0.469	0.003	0.401	0.352	0.48	0.80	1.33	0.150	5.12%
7/12/2023	0.002	0.314	0.476	0.003	0.401	0.352	0.53	0.78	1.35	0.150	5.12%
7/13/2023	0.002	0.311	0.464	0.003	0.400	0.352	0.56	0.78	1.32	0.150	5.11%
7/14/2023	0.002	0.304	0.468	0.003	0.401	0.353	0.54	0.76	1.33	0.149	5.12%
7/17/2023	0.002	0.307	0.466	0.003	0.401	0.353	0.52	0.77	1.32	0.149	5.12%
7/18/2023	0.002	0.306	0.468	0.003	0.401	0.354	0.52	0.76	1.32	0.150	5.12%
7/19/2023	0.002	0.292	0.471	0.003	0.402	0.354	0.47	0.73	1.33	0.148	5.12%
7/20/2023	0.002	0.294	0.468	0.003	0.403	0.357	0.47	0.73	1.31	0.148	5.12%
7/21/2023	0.002	0.289	0.465	0.003	0.403	0.357	0.46	0.72	1.30	0.147	5.12%
7/24/2023	0.002	0.291	0.464	0.003	0.403	0.357	0.48	0.72	1.30	0.149	5.12%
7/25/2023	0.002	0.274	0.491	0.003	0.403	0.355	0.47	0.68	1.38	0.148	5.12%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
7/26/2023	0.002	0.274	0.482	0.003	0.403	0.357	0.47	0.68	1.35	0.147	5.12%
7/27/2023	0.002	0.270	0.490	0.003	0.401	0.356	0.53	0.67	1.38	0.148	5.11%
7/28/2023	0.002	0.267	0.488	0.003	0.403	0.357	0.55	0.66	1.37	0.149	5.11%
7/31/2023	0.002	0.454	0.413	0.003	0.398	0.349	0.76	1.14	1.18	0.164	5.00%
8/1/2023	0.003	0.574	0.319	0.003	0.398	0.348	0.96	1.44	0.92	0.167	4.95%
8/2/2023	0.003	0.617	0.286	0.003	0.401	0.350	1.00	1.54	0.82	0.170	4.95%
8/3/2023	0.003	0.584	0.353	0.003	0.397	0.349	0.83	1.47	1.01	0.173	4.91%
8/4/2023	0.002	0.633	0.312	0.003	0.397	0.348	0.72	1.59	0.90	0.175	4.88%
8/7/2023	0.002	0.599	0.396	0.003	0.396	0.353	0.77	1.51	1.12	0.183	4.87%
8/8/2023	0.003	0.455	0.550	0.003	0.397	0.356	0.81	1.15	1.55	0.182	4.85%
8/9/2023	0.002	0.470	0.535	0.003	0.397	0.357	0.78	1.18	1.50	0.181	4.85%
8/10/2023	0.002	0.509	0.487	0.003	0.393	0.354	0.65	1.29	1.38	0.183	4.81%
8/11/2023	0.002	0.498	0.514	0.003	0.393	0.355	0.54	1.27	1.45	0.184	4.80%
8/14/2023	0.002	0.525	0.518	0.003	0.393	0.354	0.57	1.34	1.46	0.187	4.80%
8/15/2023	0.002	0.526	0.519	0.003	0.394	0.356	0.59	1.34	1.46	0.188	4.80%
8/16/2023	0.002	0.544	0.507	0.003	0.394	0.356	0.52	1.38	1.42	0.187	4.80%
8/17/2023	0.002	0.531	0.530	0.003	0.394	0.358	0.53	1.35	1.48	0.187	4.80%
8/18/2023	0.002	0.518	0.538	0.003	0.396	0.360	0.55	1.31	1.50	0.187	4.80%
8/21/2023	0.001	0.436	0.733	0.003	0.371	0.339	0.19	1.18	2.16	0.221	4.51%
8/22/2023	0.000	0.421	0.743	0.003	0.372	0.340	0.09	1.13	2.18	0.222	4.50%
8/23/2023	0.000	0.402	0.751	0.003	0.374	0.340	0.17	1.08	2.21	0.220	4.50%
8/24/2023	0.001	0.390	0.751	0.003	0.374	0.340	0.20	1.04	2.21	0.223	4.50%
8/25/2023	0.001	0.364	0.750	0.003	0.375	0.341	0.26	0.97	2.20	0.216	4.52%
8/28/2023	0.000	0.392	0.701	0.003	0.373	0.340	0.12	1.05	2.06	0.221	4.49%
8/29/2023	0.001	0.432	0.681	0.003	0.376	0.342	0.24	1.15	1.99	0.225	4.50%
8/30/2023	0.000	0.547	0.722	0.003	0.373	0.339	0.15	1.47	2.13	0.231	4.47%
8/31/2023	0.001	0.531	0.713	0.003	0.368	0.335	0.35	1.44	2.13	0.236	4.41%
9/1/2023	0.001	0.529	0.726	0.003	0.369	0.335	0.28	1.43	2.17	0.235	4.41%
9/5/2023	0.001	0.519	0.732	0.003	0.370	0.335	0.30	1.40	2.19	0.235	4.41%
9/6/2023	0.001	0.492	0.759	0.003	0.372	0.337	0.36	1.32	2.25	0.237	4.41%
9/7/2023	0.001	0.497	0.754	0.003	0.372	0.338	0.36	1.34	2.23	0.236	4.41%
9/8/2023	0.000	0.424	0.875	0.003	0.363	0.331	0.17	1.17	2.64	0.252	4.30%
9/11/2023	0.000	0.424	0.875	0.003	0.362	0.333	0.17	1.17	2.63	0.251	4.30%
9/12/2023	0.000	0.397	0.911	0.003	0.365	0.340	0.18	1.09	2.68	0.258	4.29%
9/13/2023	0.000	0.363	0.912	0.003	0.365	0.340	-0.06	0.99	2.69	0.248	4.28%
9/14/2023	0.000	0.359	0.912	0.003	0.366	0.340	-0.06	0.98	2.69	0.248	4.28%
9/15/2023	0.000	0.335	0.897	0.003	0.369	0.341	-0.01	0.91	2.63	0.239	4.29%
9/18/2023	0.000	0.346	0.876	0.003	0.367	0.340	-0.10	0.94	2.57	0.242	4.28%
9/19/2023	0.000	0.287	0.932	0.003	0.369	0.341	-0.10	0.78	2.74	0.239	4.28%
9/20/2023	0.000	0.291	0.927	0.003	0.369	0.340	-0.11	0.79	2.73	0.239	4.28%

## Exhibit-11

## Cassava Common Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/21/2023	0.000	0.300	0.910	0.003	0.371	0.343	-0.04	0.81	2.65	0.240	4.28%
9/22/2023	-0.001	0.475	0.863	0.003	0.340	0.315	-0.56	1.40	2.74	0.285	3.93%
9/25/2023	-0.001	0.475	0.861	0.003	0.340	0.316	-0.56	1.40	2.72	0.284	3.93%
9/26/2023	-0.003	0.683	0.775	0.002	0.290	0.269	-1.29	2.36	2.89	0.374	3.34%
9/27/2023	-0.003	0.734	0.734	0.002	0.286	0.266	-1.37	2.57	2.76	0.316	3.34%
9/28/2023	-0.003	0.740	0.783	0.002	0.280	0.261	-1.63	2.64	3.00	0.332	3.28%
9/29/2023	-0.004	0.749	0.771	0.002	0.281	0.263	-1.67	2.67	2.93	0.331	3.28%
10/2/2023	-0.003	0.693	0.944	0.002	0.276	0.263	-1.52	2.51	3.58	0.354	3.21%
10/3/2023	-0.003	0.717	0.925	0.002	0.277	0.263	-1.50	2.59	3.52	0.356	3.21%
10/4/2023	-0.003	0.661	0.940	0.002	0.280	0.265	-1.31	2.37	3.55	0.354	3.24%
10/5/2023	-0.002	0.718	0.928	0.002	0.283	0.267	-1.13	2.53	3.48	0.346	3.26%
10/6/2023	-0.002	0.770	0.929	0.002	0.283	0.264	-1.09	2.72	3.52	0.351	3.25%
10/9/2023	-0.002	0.769	0.931	0.002	0.282	0.264	-1.06	2.72	3.52	0.351	3.25%
10/10/2023	-0.002	0.782	0.934	0.002	0.281	0.262	-1.19	2.79	3.56	0.356	3.23%
10/11/2023	-0.002	0.775	0.935	0.002	0.282	0.263	-1.12	2.75	3.56	0.354	3.24%
10/12/2023	-0.002	0.742	0.931	0.002	0.280	0.261	-1.06	2.65	3.57	0.353	3.21%

**Source:** Computations performed by Crowninshield Financial Research, Inc.**Notes:** Dummy variables were used to control for potentially abnormal returns on Cassava Form 8-K event dates, excluding Form 8-K events related to earnings announcements. These dates are listed in Exhibit-14. All estimation periods are the 252 trading days prior to each respective date.

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/14/2020	0.004	1.514	-0.609	0.008	0.665	0.683	0.51	2.28	-0.89	0.180	11.94%
9/15/2020	0.004	1.514	-0.609	0.008	0.666	0.685	0.51	2.27	-0.89	0.179	11.97%
9/16/2020	0.003	1.537	-0.642	0.008	0.667	0.686	0.43	2.30	-0.94	0.177	11.98%
9/17/2020	0.003	1.535	-0.641	0.008	0.667	0.686	0.43	2.30	-0.93	0.177	11.98%
9/18/2020	0.003	1.540	-0.648	0.008	0.667	0.687	0.45	2.31	-0.94	0.198	11.98%
9/21/2020	0.005	1.407	-0.523	0.008	0.678	0.698	0.61	2.08	-0.75	0.169	12.20%
9/22/2020	0.005	1.373	-0.481	0.008	0.678	0.696	0.64	2.03	-0.69	0.169	12.19%
9/23/2020	0.005	1.367	-0.468	0.008	0.678	0.697	0.64	2.01	-0.67	0.170	12.19%
9/24/2020	0.005	1.392	-0.489	0.008	0.678	0.699	0.63	2.05	-0.70	0.170	12.19%
9/25/2020	0.005	1.379	-0.476	0.008	0.677	0.698	0.61	2.04	-0.68	0.174	12.19%
9/28/2020	0.005	1.375	-0.446	0.008	0.682	0.703	0.69	2.02	-0.63	0.169	12.23%
9/29/2020	0.005	1.359	-0.439	0.008	0.680	0.703	0.68	2.00	-0.62	0.169	12.23%
9/30/2020	0.005	1.357	-0.436	0.008	0.680	0.703	0.71	1.99	-0.62	0.168	12.23%
10/1/2020	0.005	1.355	-0.430	0.008	0.680	0.703	0.69	1.99	-0.61	0.169	12.23%
10/2/2020	0.005	1.358	-0.433	0.008	0.681	0.703	0.67	1.99	-0.62	0.170	12.23%
10/5/2020	0.005	1.327	-0.387	0.008	0.680	0.702	0.64	1.95	-0.55	0.170	12.23%
10/6/2020	0.005	1.284	-0.324	0.008	0.678	0.694	0.66	1.90	-0.47	0.169	12.24%
10/7/2020	0.005	1.284	-0.322	0.008	0.678	0.694	0.66	1.89	-0.46	0.169	12.24%
10/8/2020	0.005	1.282	-0.311	0.008	0.678	0.694	0.68	1.89	-0.45	0.169	12.25%
10/9/2020	0.005	1.287	-0.316	0.008	0.678	0.694	0.70	1.90	-0.45	0.169	12.24%
10/12/2020	0.005	1.286	-0.318	0.008	0.678	0.695	0.67	1.90	-0.46	0.169	12.25%
10/13/2020	0.005	1.271	-0.310	0.008	0.678	0.695	0.64	1.88	-0.45	0.168	12.25%
10/14/2020	0.005	1.275	-0.314	0.008	0.677	0.694	0.63	1.88	-0.45	0.168	12.25%
10/15/2020	0.005	1.271	-0.307	0.008	0.678	0.695	0.62	1.88	-0.44	0.168	12.25%
10/16/2020	0.005	1.259	-0.293	0.008	0.674	0.689	0.62	1.87	-0.42	0.169	12.25%
10/19/2020	0.005	1.264	-0.297	0.008	0.673	0.689	0.61	1.88	-0.43	0.169	12.26%
10/20/2020	0.004	1.260	-0.284	0.008	0.674	0.689	0.58	1.87	-0.41	0.169	12.26%
10/21/2020	0.004	1.234	-0.250	0.008	0.673	0.689	0.57	1.83	-0.36	0.169	12.26%
10/22/2020	0.004	1.185	-0.190	0.008	0.674	0.690	0.58	1.76	-0.28	0.168	12.26%
10/23/2020	0.004	1.187	-0.195	0.008	0.674	0.688	0.53	1.76	-0.28	0.169	12.25%
10/26/2020	0.004	1.186	-0.193	0.008	0.674	0.688	0.52	1.76	-0.28	0.169	12.25%
10/27/2020	0.004	1.187	-0.193	0.008	0.673	0.688	0.51	1.76	-0.28	0.169	12.25%
10/28/2020	0.004	1.180	-0.183	0.008	0.673	0.689	0.53	1.75	-0.27	0.169	12.25%
10/29/2020	0.004	1.193	-0.191	0.008	0.671	0.689	0.49	1.78	-0.28	0.170	12.24%
10/30/2020	0.004	1.193	-0.192	0.008	0.671	0.689	0.50	1.78	-0.28	0.170	12.24%
11/2/2020	0.004	1.183	-0.173	0.008	0.671	0.687	0.48	1.76	-0.25	0.171	12.25%
11/3/2020	0.004	1.202	-0.187	0.008	0.671	0.689	0.52	1.79	-0.27	0.170	12.25%
11/4/2020	0.004	1.208	-0.192	0.008	0.671	0.690	0.53	1.80	-0.28	0.179	12.25%
11/5/2020	0.004	1.208	-0.192	0.008	0.673	0.691	0.53	1.80	-0.28	0.177	12.28%
11/6/2020	0.004	1.123	-0.115	0.008	0.670	0.690	0.46	1.68	-0.17	0.174	12.30%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
11/9/2020	0.004	1.130	-0.122	0.008	0.668	0.687	0.47	1.69	-0.18	0.175	12.30%
11/10/2020	0.004	1.084	-0.073	0.008	0.668	0.688	0.45	1.62	-0.11	0.174	12.31%
11/11/2020	0.003	1.086	-0.075	0.008	0.668	0.688	0.45	1.63	-0.11	0.175	12.31%
11/12/2020	0.004	1.081	-0.062	0.008	0.668	0.688	0.49	1.62	-0.09	0.173	12.32%
11/13/2020	0.004	1.070	-0.054	0.008	0.668	0.688	0.51	1.60	-0.08	0.189	12.32%
11/16/2020	0.004	1.073	-0.056	0.008	0.669	0.690	0.52	1.60	-0.08	0.186	12.34%
11/17/2020	0.004	1.054	-0.039	0.008	0.668	0.690	0.50	1.58	-0.06	0.185	12.35%
11/18/2020	0.004	1.053	-0.037	0.008	0.668	0.690	0.49	1.58	-0.05	0.186	12.35%
11/19/2020	0.003	1.054	-0.033	0.008	0.670	0.692	0.44	1.57	-0.05	0.185	12.35%
11/20/2020	0.003	1.051	-0.030	0.008	0.671	0.693	0.44	1.57	-0.04	0.185	12.35%
11/23/2020	0.003	1.057	-0.036	0.008	0.670	0.692	0.43	1.58	-0.05	0.186	12.35%
11/24/2020	0.003	1.054	-0.036	0.008	0.670	0.692	0.39	1.57	-0.05	0.185	12.35%
11/25/2020	0.003	1.077	-0.069	0.008	0.668	0.692	0.37	1.61	-0.10	0.186	12.35%
11/27/2020	0.003	1.069	-0.059	0.008	0.668	0.692	0.40	1.60	-0.09	0.185	12.35%
11/30/2020	0.003	1.068	-0.059	0.008	0.663	0.684	0.39	1.61	-0.09	0.185	12.35%
12/1/2020	0.003	1.074	-0.064	0.008	0.661	0.682	0.38	1.63	-0.09	0.185	12.35%
12/2/2020	0.002	1.068	-0.046	0.008	0.659	0.680	0.28	1.62	-0.07	0.187	12.32%
12/3/2020	0.002	1.064	-0.042	0.008	0.660	0.681	0.27	1.61	-0.06	0.187	12.32%
12/4/2020	0.002	1.063	-0.042	0.008	0.660	0.681	0.26	1.61	-0.06	0.187	12.32%
12/7/2020	0.002	1.059	-0.035	0.008	0.661	0.683	0.26	1.60	-0.05	0.187	12.32%
12/8/2020	0.002	1.059	-0.033	0.008	0.661	0.683	0.26	1.60	-0.05	0.187	12.32%
12/9/2020	0.002	1.051	-0.023	0.008	0.660	0.681	0.31	1.59	-0.03	0.187	12.31%
12/10/2020	0.003	1.048	-0.021	0.008	0.660	0.681	0.32	1.59	-0.03	0.187	12.31%
12/11/2020	0.002	1.050	-0.025	0.008	0.660	0.680	0.30	1.59	-0.04	0.187	12.31%
12/14/2020	0.002	1.042	-0.023	0.008	0.659	0.679	0.28	1.58	-0.03	0.187	12.30%
12/15/2020	0.002	1.071	-0.057	0.008	0.654	0.672	0.26	1.64	-0.08	0.187	12.31%
12/16/2020	0.002	1.077	-0.060	0.008	0.653	0.671	0.28	1.65	-0.09	0.187	12.31%
12/17/2020	0.002	1.079	-0.063	0.008	0.652	0.671	0.29	1.65	-0.09	0.188	12.30%
12/18/2020	0.003	1.079	-0.060	0.008	0.652	0.671	0.35	1.65	-0.09	0.188	12.30%
12/21/2020	0.002	1.087	-0.073	0.008	0.651	0.669	0.27	1.67	-0.11	0.188	12.28%
12/22/2020	0.001	1.101	-0.095	0.008	0.648	0.667	0.17	1.70	-0.14	0.189	12.24%
12/23/2020	-0.001	1.171	-0.184	0.008	0.629	0.647	-0.09	1.86	-0.28	0.200	11.87%
12/24/2020	-0.002	1.199	-0.219	0.007	0.624	0.642	-0.22	1.92	-0.34	0.203	11.78%
12/28/2020	-0.001	1.230	-0.252	0.007	0.623	0.641	-0.16	1.97	-0.39	0.205	11.75%
12/29/2020	-0.002	1.178	-0.184	0.007	0.619	0.636	-0.30	1.90	-0.29	0.206	11.66%
12/30/2020	-0.003	1.148	-0.135	0.007	0.616	0.634	-0.42	1.86	-0.21	0.207	11.61%
12/31/2020	-0.002	1.147	-0.128	0.007	0.614	0.631	-0.32	1.87	-0.20	0.209	11.57%
1/4/2021	-0.004	1.025	-0.002	0.007	0.605	0.622	-0.52	1.70	0.00	0.214	11.39%
1/5/2021	-0.005	0.970	0.079	0.007	0.596	0.614	-0.67	1.63	0.13	0.221	11.23%
1/6/2021	-0.004	0.976	0.082	0.007	0.595	0.613	-0.57	1.64	0.13	0.221	11.22%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
1/7/2021	-0.003	0.963	0.100	0.007	0.594	0.612	-0.47	1.62	0.16	0.221	11.20%
1/8/2021	-0.004	0.971	0.088	0.007	0.592	0.608	-0.53	1.64	0.15	0.221	11.18%
1/11/2021	-0.003	0.973	0.090	0.007	0.592	0.608	-0.48	1.64	0.15	0.222	11.17%
1/12/2021	-0.004	0.973	0.091	0.007	0.591	0.608	-0.50	1.65	0.15	0.222	11.16%
1/13/2021	-0.003	1.048	0.008	0.007	0.591	0.608	-0.42	1.77	0.01	0.245	11.12%
1/14/2021	-0.002	1.109	-0.065	0.007	0.604	0.622	-0.27	1.84	-0.10	0.219	11.32%
1/15/2021	-0.003	1.164	-0.134	0.007	0.600	0.616	-0.38	1.94	-0.22	0.218	11.30%
1/19/2021	-0.003	1.158	-0.129	0.007	0.599	0.616	-0.37	1.93	-0.21	0.225	11.30%
1/20/2021	-0.002	1.123	-0.068	0.007	0.603	0.618	-0.24	1.86	-0.11	0.216	11.37%
1/21/2021	-0.002	1.110	-0.062	0.007	0.602	0.619	-0.25	1.84	-0.10	0.215	11.38%
1/22/2021	-0.002	1.106	-0.057	0.007	0.602	0.618	-0.28	1.84	-0.09	0.216	11.38%
1/25/2021	-0.002	1.098	-0.049	0.007	0.602	0.618	-0.21	1.83	-0.08	0.222	11.38%
1/26/2021	-0.001	1.053	0.004	0.007	0.605	0.622	-0.07	1.74	0.01	0.221	11.44%
1/27/2021	0.000	1.133	-0.101	0.007	0.609	0.624	0.05	1.86	-0.16	0.209	11.53%
1/28/2021	0.000	1.137	-0.134	0.007	0.606	0.620	-0.02	1.88	-0.22	0.211	11.47%
1/29/2021	0.000	1.125	-0.127	0.007	0.606	0.620	-0.04	1.86	-0.20	0.211	11.47%
2/1/2021	0.000	1.098	-0.107	0.007	0.605	0.621	0.03	1.82	-0.17	0.213	11.48%
2/2/2021	0.001	1.127	-0.115	0.007	0.606	0.622	0.08	1.86	-0.18	0.330	11.51%
2/3/2021	0.001	1.125	-0.111	0.007	0.607	0.625	0.09	1.85	-0.18	0.354	11.53%
2/4/2021	0.002	1.183	-0.181	0.008	0.627	0.645	0.32	1.89	-0.28	0.327	11.90%
2/5/2021	0.001	1.193	-0.233	0.008	0.638	0.659	0.14	1.87	-0.35	0.321	12.10%
2/8/2021	0.000	1.269	-0.348	0.008	0.649	0.669	-0.02	1.96	-0.52	0.309	12.30%
2/9/2021	0.000	1.271	-0.352	0.008	0.650	0.670	0.00	1.95	-0.53	0.306	12.32%
2/10/2021	0.000	1.260	-0.339	0.008	0.650	0.670	-0.03	1.94	-0.51	0.309	12.33%
2/11/2021	-0.001	1.230	-0.300	0.008	0.652	0.672	-0.10	1.89	-0.45	0.305	12.37%
2/12/2021	-0.001	1.229	-0.298	0.008	0.652	0.672	-0.11	1.89	-0.44	0.305	12.37%
2/16/2021	-0.001	1.230	-0.303	0.008	0.652	0.673	-0.13	1.89	-0.45	0.306	12.37%
2/17/2021	-0.001	1.229	-0.300	0.008	0.653	0.674	-0.10	1.88	-0.44	0.303	12.39%
2/18/2021	-0.001	1.229	-0.300	0.008	0.653	0.673	-0.10	1.88	-0.45	0.303	12.39%
2/19/2021	-0.001	1.227	-0.295	0.008	0.652	0.671	-0.07	1.88	-0.44	0.304	12.39%
2/22/2021	0.000	1.212	-0.273	0.008	0.652	0.671	-0.04	1.86	-0.41	0.303	12.40%
2/23/2021	-0.001	1.234	-0.291	0.008	0.654	0.672	-0.09	1.89	-0.43	0.301	12.41%
2/24/2021	-0.001	1.230	-0.285	0.008	0.653	0.671	-0.10	1.88	-0.42	0.301	12.41%
2/25/2021	-0.001	1.218	-0.285	0.008	0.654	0.670	-0.07	1.86	-0.42	0.301	12.41%
2/26/2021	0.000	1.197	-0.257	0.008	0.656	0.673	-0.05	1.83	-0.38	0.301	12.41%
3/1/2021	0.000	1.195	-0.271	0.008	0.656	0.673	-0.05	1.82	-0.40	0.300	12.41%
3/2/2021	0.000	1.179	-0.255	0.008	0.657	0.675	-0.03	1.80	-0.38	0.300	12.40%
3/3/2021	0.000	1.183	-0.310	0.008	0.655	0.674	-0.06	1.81	-0.46	0.300	12.38%
3/4/2021	-0.001	1.158	-0.277	0.008	0.653	0.668	-0.07	1.77	-0.41	0.301	12.39%
3/5/2021	-0.001	1.149	-0.226	0.008	0.653	0.669	-0.08	1.76	-0.34	0.300	12.39%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/8/2021	-0.001	1.175	-0.246	0.008	0.656	0.669	-0.13	1.79	-0.37	0.301	12.39%
3/9/2021	-0.001	1.187	-0.264	0.008	0.656	0.667	-0.12	1.81	-0.40	0.303	12.39%
3/10/2021	0.000	1.059	-0.219	0.008	0.661	0.665	0.04	1.60	-0.33	0.296	12.39%
3/11/2021	0.000	1.069	-0.224	0.008	0.667	0.667	0.04	1.60	-0.34	0.297	12.39%
3/12/2021	0.001	1.020	-0.234	0.008	0.666	0.664	0.13	1.53	-0.35	0.295	12.37%
3/15/2021	0.002	0.842	-0.282	0.008	0.672	0.661	0.27	1.25	-0.43	0.293	12.31%
3/16/2021	0.002	0.673	-0.303	0.008	0.677	0.657	0.20	0.99	-0.46	0.293	12.24%
3/17/2021	0.001	0.704	-0.303	0.008	0.709	0.656	0.18	0.99	-0.46	0.297	12.24%
3/18/2021	0.002	0.713	-0.203	0.008	0.711	0.665	0.30	1.00	-0.30	0.293	12.28%
3/19/2021	0.001	0.830	-0.204	0.008	0.739	0.668	0.18	1.12	-0.31	0.293	12.28%
3/22/2021	0.001	0.834	-0.235	0.008	0.736	0.667	0.15	1.13	-0.35	0.293	12.27%
3/23/2021	0.001	0.792	-0.242	0.008	0.741	0.666	0.18	1.07	-0.36	0.293	12.26%
3/24/2021	0.001	0.839	-0.221	0.008	0.746	0.658	0.08	1.12	-0.34	0.295	12.26%
3/25/2021	0.000	0.850	-0.186	0.008	0.786	0.657	0.04	1.08	-0.28	0.294	12.26%
3/26/2021	0.001	0.907	-0.228	0.008	0.792	0.661	0.08	1.14	-0.34	0.295	12.26%
3/29/2021	0.000	0.913	-0.200	0.008	0.801	0.661	0.06	1.14	-0.30	0.294	12.26%
3/30/2021	0.000	0.962	-0.197	0.008	0.808	0.660	-0.01	1.19	-0.30	0.295	12.26%
3/31/2021	0.000	0.976	-0.159	0.008	0.808	0.662	0.02	1.21	-0.24	0.295	12.25%
4/1/2021	0.000	0.977	-0.148	0.008	0.807	0.658	0.01	1.21	-0.23	0.295	12.25%
4/5/2021	0.000	1.057	-0.147	0.008	0.817	0.658	-0.02	1.29	-0.22	0.296	12.25%
4/6/2021	-0.001	1.052	-0.218	0.008	0.815	0.661	-0.10	1.29	-0.33	0.297	12.23%
4/7/2021	-0.001	1.053	-0.211	0.008	0.817	0.661	-0.14	1.29	-0.32	0.297	12.23%
4/8/2021	-0.001	1.142	-0.203	0.008	0.843	0.658	-0.15	1.35	-0.31	0.297	12.23%
4/9/2021	-0.001	1.161	-0.227	0.008	0.845	0.662	-0.12	1.37	-0.34	0.297	12.22%
4/12/2021	-0.001	1.112	-0.225	0.008	0.850	0.661	-0.15	1.31	-0.34	0.300	12.22%
4/13/2021	-0.002	1.112	-0.179	0.008	0.854	0.661	-0.19	1.30	-0.27	0.296	12.25%
4/14/2021	-0.002	1.213	-0.240	0.008	0.855	0.659	-0.28	1.42	-0.36	0.299	12.21%
4/15/2021	-0.002	1.211	-0.242	0.008	0.854	0.657	-0.29	1.42	-0.37	0.299	12.21%
4/16/2021	-0.002	1.205	-0.246	0.008	0.857	0.657	-0.30	1.41	-0.37	0.298	12.21%
4/19/2021	-0.003	1.225	-0.273	0.008	0.860	0.664	-0.32	1.42	-0.41	0.299	12.21%
4/20/2021	-0.003	1.229	-0.267	0.008	0.860	0.668	-0.33	1.43	-0.40	0.299	12.21%
4/21/2021	-0.003	1.222	-0.256	0.008	0.871	0.676	-0.33	1.40	-0.38	0.299	12.21%
4/22/2021	-0.003	1.234	-0.253	0.008	0.878	0.678	-0.34	1.41	-0.37	0.296	12.24%
4/23/2021	-0.003	1.209	-0.244	0.008	0.882	0.679	-0.32	1.37	-0.36	0.297	12.24%
4/26/2021	-0.003	1.240	-0.246	0.008	0.872	0.672	-0.43	1.42	-0.37	0.301	12.12%
4/27/2021	-0.003	1.222	-0.203	0.008	0.871	0.670	-0.38	1.40	-0.30	0.301	12.12%
4/28/2021	-0.003	1.214	-0.208	0.008	0.874	0.670	-0.36	1.39	-0.31	0.301	12.13%
4/29/2021	-0.003	1.219	-0.217	0.008	0.876	0.674	-0.33	1.39	-0.32	0.300	12.14%
4/30/2021	-0.003	1.165	-0.198	0.008	0.887	0.675	-0.34	1.31	-0.29	0.300	12.13%
5/3/2021	-0.003	1.154	-0.200	0.008	0.887	0.674	-0.33	1.30	-0.30	0.301	12.13%



## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/4/2021	-0.003	1.160	-0.196	0.008	0.895	0.675	-0.38	1.30	-0.29	0.300	12.14%
5/5/2021	-0.003	1.178	-0.211	0.008	0.896	0.675	-0.43	1.31	-0.31	0.300	12.14%
5/6/2021	-0.003	1.181	-0.213	0.008	0.896	0.677	-0.41	1.32	-0.32	0.300	12.14%
5/7/2021	-0.003	1.171	-0.208	0.008	0.897	0.677	-0.41	1.31	-0.31	0.300	12.14%
5/10/2021	-0.003	1.162	-0.206	0.008	0.900	0.677	-0.42	1.29	-0.30	0.300	12.14%
5/11/2021	-0.004	1.084	-0.169	0.008	0.902	0.676	-0.50	1.20	-0.25	0.301	12.12%
5/12/2021	-0.004	1.165	-0.268	0.008	0.910	0.693	-0.54	1.28	-0.39	0.302	12.11%
5/13/2021	-0.004	1.095	-0.280	0.008	0.902	0.690	-0.47	1.21	-0.41	0.302	12.08%
5/14/2021	-0.003	1.060	-0.273	0.008	0.905	0.690	-0.45	1.17	-0.40	0.302	12.08%
5/17/2021	-0.003	1.061	-0.241	0.008	0.908	0.691	-0.43	1.17	-0.35	0.302	12.08%
5/18/2021	0.003	0.457	0.675	0.005	0.630	0.482	0.59	0.72	1.40	0.487	8.38%
5/19/2021	0.003	0.344	0.720	0.005	0.641	0.483	0.62	0.54	1.49	0.486	8.38%
5/20/2021	0.004	0.341	0.701	0.005	0.641	0.484	0.68	0.53	1.45	0.485	8.38%
5/21/2021	0.004	0.361	0.717	0.005	0.641	0.482	0.72	0.56	1.49	0.486	8.37%
5/24/2021	0.004	0.358	0.709	0.005	0.641	0.482	0.76	0.56	1.47	0.486	8.37%
5/25/2021	0.004	0.338	0.718	0.005	0.639	0.481	0.71	0.53	1.49	0.486	8.37%
5/26/2021	0.004	0.313	0.739	0.005	0.648	0.488	0.69	0.48	1.51	0.486	8.37%
5/27/2021	0.004	0.322	0.743	0.005	0.651	0.489	0.74	0.50	1.52	0.486	8.38%
5/28/2021	0.004	0.311	0.756	0.005	0.652	0.490	0.82	0.48	1.54	0.485	8.39%
6/1/2021	0.004	0.314	0.753	0.005	0.653	0.492	0.80	0.48	1.53	0.485	8.39%
6/2/2021	0.005	0.336	0.734	0.005	0.655	0.493	0.85	0.51	1.49	0.484	8.40%
6/3/2021	0.005	0.348	0.733	0.005	0.656	0.493	0.92	0.53	1.49	0.483	8.40%
6/4/2021	0.004	-0.296	1.179	0.005	0.607	0.456	0.72	-0.49	2.59	0.533	7.69%
6/7/2021	0.005	-0.280	1.125	0.005	0.594	0.446	0.96	-0.47	2.52	0.542	7.53%
6/8/2021	0.005	-0.250	1.116	0.005	0.599	0.440	0.98	-0.42	2.54	0.542	7.53%
6/9/2021	0.005	-0.242	1.115	0.005	0.600	0.440	1.01	-0.40	2.53	0.543	7.53%
6/10/2021	0.004	-0.162	1.065	0.005	0.599	0.438	0.89	-0.27	2.43	0.543	7.53%
6/11/2021	0.004	-0.173	1.064	0.005	0.600	0.437	0.89	-0.29	2.43	0.545	7.52%
6/14/2021	0.005	-0.212	1.025	0.005	0.637	0.441	1.05	-0.33	2.33	0.537	7.58%
6/15/2021	0.005	-0.170	1.016	0.005	0.639	0.440	1.08	-0.27	2.31	0.538	7.57%
6/16/2021	0.005	-0.183	1.021	0.005	0.639	0.440	1.02	-0.29	2.32	0.539	7.57%
6/17/2021	0.005	-0.230	1.012	0.005	0.643	0.441	1.09	-0.36	2.29	0.536	7.60%
6/18/2021	0.005	-0.239	1.015	0.005	0.644	0.441	1.10	-0.37	2.30	0.536	7.60%
6/21/2021	0.005	-0.248	1.019	0.005	0.640	0.441	1.11	-0.39	2.31	0.537	7.60%
6/22/2021	0.006	-0.301	1.068	0.005	0.650	0.452	1.15	-0.46	2.36	0.539	7.61%
6/23/2021	0.006	-0.304	1.069	0.005	0.653	0.453	1.14	-0.47	2.36	0.538	7.63%
6/24/2021	0.005	-0.306	1.066	0.005	0.652	0.453	1.11	-0.47	2.35	0.538	7.62%
6/25/2021	0.005	-0.110	1.045	0.005	0.656	0.450	0.98	-0.17	2.32	0.543	7.57%
6/28/2021	0.005	-0.087	1.044	0.005	0.656	0.450	0.98	-0.13	2.32	0.544	7.57%
6/29/2021	0.005	0.028	1.047	0.005	0.660	0.449	0.93	0.04	2.33	0.545	7.55%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/30/2021	0.005	0.126	0.998	0.005	0.664	0.450	0.95	0.19	2.22	0.545	7.54%
7/1/2021	0.005	0.137	1.005	0.005	0.665	0.450	0.99	0.21	2.23	0.546	7.54%
7/2/2021	0.005	0.137	1.013	0.005	0.665	0.449	1.04	0.21	2.26	0.546	7.53%
7/6/2021	0.005	0.147	1.017	0.005	0.663	0.448	1.10	0.22	2.27	0.546	7.52%
7/7/2021	0.005	0.134	1.006	0.005	0.666	0.448	1.12	0.20	2.25	0.546	7.53%
7/8/2021	0.005	0.200	0.960	0.005	0.671	0.448	1.11	0.30	2.14	0.546	7.53%
7/9/2021	0.006	0.125	1.001	0.005	0.669	0.448	1.21	0.19	2.24	0.546	7.55%
7/12/2021	0.006	0.036	1.016	0.005	0.672	0.450	1.14	0.05	2.26	0.541	7.59%
7/13/2021	0.005	-0.048	1.066	0.005	0.675	0.451	1.11	-0.07	2.36	0.543	7.57%
7/14/2021	0.005	-0.010	1.068	0.005	0.674	0.450	1.07	-0.01	2.37	0.545	7.55%
7/15/2021	0.005	-0.014	1.098	0.005	0.674	0.451	1.04	-0.02	2.44	0.549	7.56%
7/16/2021	0.005	0.082	1.090	0.005	0.679	0.454	0.95	0.12	2.40	0.542	7.61%
7/19/2021	0.004	0.129	1.062	0.005	0.675	0.452	0.90	0.19	2.35	0.541	7.61%
7/20/2021	0.005	0.084	1.107	0.005	0.665	0.449	0.97	0.13	2.46	0.543	7.61%
7/21/2021	0.005	0.150	1.108	0.005	0.664	0.450	1.04	0.23	2.46	0.550	7.62%
7/22/2021	0.006	0.212	1.144	0.005	0.680	0.464	1.16	0.31	2.46	0.532	7.77%
7/23/2021	0.006	0.220	1.137	0.005	0.682	0.465	1.23	0.32	2.44	0.531	7.78%
7/26/2021	0.006	0.206	1.137	0.005	0.682	0.466	1.20	0.30	2.44	0.530	7.79%
7/27/2021	0.006	0.190	1.189	0.005	0.678	0.463	1.12	0.28	2.57	0.532	7.77%
7/28/2021	0.006	0.160	1.221	0.005	0.678	0.466	1.23	0.24	2.62	0.532	7.77%
7/29/2021	0.006	0.146	1.235	0.005	0.676	0.461	1.25	0.22	2.68	0.543	7.77%
7/30/2021	0.006	0.165	1.224	0.005	0.684	0.465	1.26	0.24	2.63	0.563	7.79%
8/2/2021	0.005	0.319	1.177	0.005	0.720	0.490	0.90	0.44	2.40	0.517	8.20%
8/3/2021	0.005	0.285	1.196	0.005	0.728	0.498	1.00	0.39	2.40	0.512	8.25%
8/4/2021	0.005	0.274	1.219	0.005	0.730	0.504	1.01	0.37	2.42	0.510	8.26%
8/5/2021	0.006	0.268	1.224	0.005	0.729	0.502	1.04	0.37	2.44	0.513	8.26%
8/6/2021	0.006	0.269	1.267	0.005	0.733	0.503	1.14	0.37	2.52	0.510	8.29%
8/9/2021	0.006	0.273	1.272	0.005	0.732	0.501	1.15	0.37	2.54	0.510	8.29%
8/10/2021	0.006	0.231	1.315	0.005	0.729	0.496	1.19	0.32	2.65	0.509	8.30%
8/11/2021	0.006	0.237	1.305	0.005	0.729	0.495	1.20	0.33	2.64	0.509	8.30%
8/12/2021	0.007	0.277	1.255	0.005	0.723	0.488	1.24	0.38	2.57	0.509	8.30%
8/13/2021	0.007	0.211	1.262	0.005	0.723	0.487	1.23	0.29	2.59	0.509	8.28%
8/16/2021	0.007	0.201	1.268	0.005	0.722	0.486	1.28	0.28	2.61	0.510	8.28%
8/17/2021	0.007	0.184	1.294	0.005	0.722	0.485	1.21	0.26	2.67	0.512	8.27%
8/18/2021	0.006	0.359	1.160	0.005	0.719	0.484	1.07	0.50	2.40	0.506	8.32%
8/19/2021	0.006	0.358	1.148	0.005	0.719	0.484	1.12	0.50	2.37	0.507	8.32%
8/20/2021	0.006	0.346	1.170	0.005	0.717	0.480	1.09	0.48	2.44	0.507	8.32%
8/23/2021	0.006	0.351	1.166	0.005	0.717	0.479	1.11	0.49	2.43	0.508	8.32%
8/24/2021	0.007	0.360	1.190	0.005	0.717	0.476	1.21	0.50	2.50	0.508	8.31%
8/25/2021	0.007	0.389	1.171	0.005	0.720	0.478	1.24	0.54	2.45	0.528	8.31%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/26/2021	0.007	0.394	1.164	0.005	0.722	0.481	1.22	0.54	2.42	0.528	8.33%
8/27/2021	0.006	0.437	1.165	0.005	0.728	0.484	1.11	0.60	2.41	0.529	8.37%
8/30/2021	0.006	0.442	1.162	0.005	0.729	0.485	1.15	0.61	2.40	0.529	8.38%
8/31/2021	0.006	0.437	1.163	0.005	0.731	0.486	1.14	0.60	2.40	0.527	8.40%
9/1/2021	0.006	0.419	1.180	0.006	0.736	0.491	1.15	0.57	2.41	0.526	8.42%
9/2/2021	0.006	0.451	1.142	0.006	0.745	0.498	1.07	0.60	2.29	0.523	8.45%
9/3/2021	0.006	0.461	1.151	0.006	0.746	0.497	1.11	0.62	2.31	0.524	8.45%
9/7/2021	0.006	0.521	1.158	0.006	0.759	0.499	1.06	0.69	2.32	0.523	8.46%
9/8/2021	0.006	0.522	1.158	0.006	0.762	0.500	1.06	0.69	2.32	0.521	8.48%
9/9/2021	0.006	0.607	1.152	0.006	0.774	0.499	0.99	0.78	2.31	0.522	8.47%
9/10/2021	0.006	0.575	1.164	0.006	0.779	0.500	1.03	0.74	2.33	0.521	8.48%
9/13/2021	0.006	0.561	1.165	0.006	0.781	0.500	1.05	0.72	2.33	0.521	8.48%
9/14/2021	0.006	0.572	1.155	0.006	0.783	0.501	1.02	0.73	2.31	0.522	8.50%
9/15/2021	0.006	0.572	1.155	0.006	0.783	0.501	1.02	0.73	2.31	0.413	8.50%
9/16/2021	0.006	0.589	1.182	0.006	0.779	0.499	1.13	0.76	2.37	0.416	8.46%
9/17/2021	0.006	0.591	1.180	0.006	0.779	0.499	1.12	0.76	2.37	0.418	8.46%
9/20/2021	0.007	0.519	1.219	0.006	0.779	0.499	1.19	0.67	2.44	0.415	8.48%
9/21/2021	0.005	0.817	1.065	0.005	0.750	0.481	0.95	1.09	2.21	0.437	8.17%
9/22/2021	0.005	0.797	1.093	0.005	0.752	0.483	1.00	1.06	2.26	0.435	8.18%
9/23/2021	0.005	0.778	1.093	0.005	0.754	0.484	0.97	1.03	2.26	0.436	8.20%
9/24/2021	0.005	0.709	1.105	0.005	0.768	0.485	1.01	0.92	2.28	0.433	8.21%
9/27/2021	0.006	0.735	1.076	0.005	0.768	0.484	1.04	0.96	2.22	0.434	8.22%
9/28/2021	0.005	0.658	1.044	0.005	0.767	0.483	0.96	0.86	2.16	0.433	8.19%
9/29/2021	0.005	0.729	1.033	0.005	0.769	0.482	0.98	0.95	2.14	0.434	8.18%
9/30/2021	0.005	0.734	1.036	0.005	0.770	0.482	0.93	0.95	2.15	0.434	8.19%
10/1/2021	0.005	0.737	1.035	0.005	0.767	0.481	0.93	0.96	2.15	0.434	8.19%
10/4/2021	0.005	0.719	1.056	0.005	0.758	0.475	0.94	0.95	2.22	0.437	8.19%
10/5/2021	0.005	0.718	1.035	0.005	0.759	0.478	0.98	0.95	2.17	0.434	8.20%
10/6/2021	0.005	0.742	1.008	0.005	0.758	0.483	0.99	0.98	2.09	0.434	8.20%
10/7/2021	0.005	0.739	1.008	0.005	0.761	0.485	0.99	0.97	2.08	0.432	8.22%
10/8/2021	0.005	0.718	1.001	0.005	0.763	0.485	0.97	0.94	2.06	0.432	8.22%
10/11/2021	0.005	0.724	1.004	0.005	0.765	0.485	0.94	0.95	2.07	0.431	8.22%
10/12/2021	0.005	0.750	1.003	0.005	0.764	0.484	0.97	0.98	2.07	0.432	8.22%
10/13/2021	0.006	0.807	0.994	0.005	0.766	0.484	1.02	1.05	2.05	0.433	8.21%
10/14/2021	0.006	0.802	1.003	0.005	0.768	0.485	1.08	1.04	2.07	0.433	8.21%
10/15/2021	0.006	0.745	1.002	0.005	0.765	0.486	1.04	0.97	2.06	0.433	8.22%
10/18/2021	0.005	0.690	1.040	0.005	0.766	0.490	0.98	0.90	2.12	0.430	8.23%
10/19/2021	0.006	0.686	1.042	0.005	0.764	0.488	1.03	0.90	2.14	0.432	8.23%
10/20/2021	0.006	0.643	1.020	0.005	0.768	0.489	1.00	0.84	2.09	0.429	8.24%
10/21/2021	0.006	0.655	1.009	0.005	0.768	0.489	1.02	0.85	2.06	0.429	8.24%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/22/2021	0.006	0.662	0.989	0.005	0.767	0.490	1.04	0.86	2.02	0.429	8.23%
10/25/2021	0.006	0.665	1.000	0.005	0.767	0.490	1.05	0.87	2.04	0.430	8.23%
10/26/2021	0.006	0.656	1.001	0.006	0.769	0.491	1.01	0.85	2.04	0.428	8.24%
10/27/2021	0.006	0.641	1.003	0.006	0.777	0.492	1.01	0.83	2.04	0.428	8.24%
10/28/2021	0.005	0.648	1.018	0.006	0.778	0.492	0.98	0.83	2.07	0.427	8.25%
10/29/2021	0.005	0.618	1.008	0.006	0.801	0.491	0.96	0.77	2.05	0.427	8.25%
11/1/2021	0.005	0.622	1.011	0.006	0.803	0.491	0.94	0.77	2.06	0.427	8.25%
11/2/2021	0.006	0.596	1.016	0.006	0.805	0.491	1.01	0.74	2.07	0.435	8.26%
11/3/2021	0.006	0.494	1.087	0.006	0.820	0.498	1.12	0.60	2.18	0.419	8.37%
11/4/2021	0.006	0.495	1.067	0.006	0.827	0.498	1.08	0.60	2.14	0.446	8.37%
11/5/2021	0.006	0.495	1.067	0.006	0.827	0.498	1.08	0.60	2.14	0.438	8.37%
11/8/2021	0.007	0.833	0.889	0.006	0.837	0.493	1.21	1.00	1.81	0.438	8.36%
11/9/2021	0.007	0.820	0.904	0.006	0.838	0.495	1.17	0.98	1.83	0.441	8.36%
11/10/2021	0.006	0.895	0.902	0.006	0.848	0.499	1.10	1.06	1.81	0.439	8.40%
11/11/2021	0.006	0.963	0.916	0.006	0.849	0.500	1.03	1.13	1.83	0.436	8.42%
11/12/2021	0.006	0.951	0.901	0.006	0.848	0.500	1.01	1.12	1.80	0.436	8.42%
11/15/2021	0.005	0.946	0.903	0.006	0.852	0.501	0.93	1.11	1.80	0.438	8.43%
11/16/2021	0.005	0.940	0.920	0.006	0.855	0.502	0.83	1.10	1.83	0.419	8.45%
11/17/2021	0.005	0.997	0.901	0.006	0.860	0.503	0.87	1.16	1.79	0.433	8.45%
11/18/2021	0.004	1.130	0.863	0.006	0.878	0.514	0.64	1.29	1.68	0.408	8.63%
11/19/2021	0.004	1.117	0.849	0.006	0.880	0.516	0.67	1.27	1.64	0.406	8.65%
11/22/2021	0.004	1.076	0.873	0.006	0.882	0.517	0.75	1.22	1.69	0.403	8.67%
11/23/2021	0.004	1.059	0.882	0.006	0.883	0.518	0.77	1.20	1.70	0.403	8.67%
11/24/2021	0.005	1.090	0.874	0.006	0.884	0.518	0.80	1.23	1.69	0.406	8.66%
11/26/2021	0.005	1.099	0.875	0.006	0.899	0.523	0.86	1.22	1.67	0.403	8.68%
11/29/2021	0.005	1.160	0.848	0.006	0.871	0.517	0.81	1.33	1.64	0.404	8.68%
11/30/2021	0.005	1.105	0.882	0.006	0.871	0.523	0.80	1.27	1.69	0.403	8.68%
12/1/2021	0.005	1.086	0.891	0.006	0.863	0.525	0.81	1.26	1.70	0.405	8.68%
12/2/2021	0.005	1.166	0.901	0.006	0.863	0.525	0.79	1.35	1.72	0.404	8.68%
12/3/2021	0.005	1.126	0.909	0.006	0.856	0.524	0.79	1.32	1.73	0.405	8.68%
12/6/2021	0.004	1.135	0.917	0.006	0.856	0.523	0.77	1.33	1.75	0.405	8.69%
12/7/2021	0.004	1.059	0.959	0.006	0.846	0.517	0.73	1.25	1.85	0.405	8.69%
12/8/2021	0.004	1.070	0.970	0.006	0.844	0.514	0.77	1.27	1.89	0.406	8.69%
12/9/2021	0.004	1.073	0.969	0.006	0.844	0.515	0.77	1.27	1.88	0.407	8.69%
12/10/2021	0.004	1.099	0.997	0.006	0.845	0.515	0.71	1.30	1.94	0.406	8.70%
12/13/2021	0.004	1.051	1.040	0.006	0.841	0.513	0.72	1.25	2.03	0.406	8.70%
12/14/2021	0.004	1.054	1.040	0.006	0.832	0.509	0.69	1.27	2.04	0.407	8.69%
12/15/2021	0.005	0.937	1.119	0.006	0.835	0.514	0.79	1.12	2.17	0.407	8.68%
12/16/2021	0.004	0.874	1.105	0.006	0.840	0.515	0.73	1.04	2.14	0.406	8.69%
12/17/2021	0.004	0.898	1.103	0.006	0.839	0.516	0.72	1.07	2.14	0.406	8.70%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/20/2021	0.004	0.939	1.058	0.006	0.830	0.507	0.66	1.13	2.09	0.411	8.70%
12/21/2021	0.003	1.048	1.055	0.006	0.831	0.510	0.58	1.26	2.07	0.409	8.74%
12/22/2021	0.004	1.033	1.063	0.006	0.834	0.512	0.60	1.24	2.08	0.406	8.76%
12/23/2021	0.004	1.020	1.072	0.006	0.830	0.510	0.63	1.23	2.10	0.407	8.76%
12/27/2021	0.004	1.018	1.071	0.006	0.829	0.510	0.62	1.23	2.10	0.407	8.76%
12/28/2021	0.004	1.111	1.016	0.006	0.821	0.506	0.67	1.35	2.01	0.407	8.76%
12/29/2021	0.004	1.112	1.023	0.006	0.819	0.505	0.64	1.36	2.02	0.408	8.75%
12/30/2021	0.004	1.117	1.005	0.006	0.819	0.506	0.64	1.36	1.99	0.408	8.75%
12/31/2021	0.004	1.112	1.006	0.006	0.819	0.505	0.63	1.36	1.99	0.408	8.75%
1/3/2022	0.004	1.126	0.996	0.006	0.820	0.506	0.66	1.37	1.97	0.409	8.75%
1/4/2022	0.004	1.205	0.988	0.006	0.825	0.506	0.66	1.46	1.95	0.408	8.75%
1/5/2022	0.004	1.174	0.980	0.006	0.825	0.502	0.64	1.42	1.95	0.408	8.75%
1/6/2022	0.004	1.096	0.922	0.006	0.824	0.500	0.68	1.33	1.84	0.406	8.76%
1/7/2022	0.004	1.106	0.931	0.006	0.825	0.502	0.69	1.34	1.85	0.406	8.76%
1/10/2022	0.004	1.111	0.935	0.006	0.825	0.502	0.69	1.35	1.86	0.406	8.76%
1/11/2022	0.004	1.109	0.935	0.006	0.825	0.501	0.69	1.34	1.87	0.406	8.76%
1/12/2022	0.004	1.115	0.934	0.006	0.823	0.501	0.71	1.35	1.87	0.406	8.76%
1/13/2022	0.003	1.070	0.968	0.006	0.795	0.482	0.47	1.35	2.01	0.427	8.47%
1/14/2022	0.003	0.994	1.069	0.006	0.793	0.484	0.55	1.25	2.21	0.430	8.43%
1/18/2022	0.003	1.009	1.062	0.006	0.795	0.484	0.53	1.27	2.19	0.432	8.43%
1/19/2022	0.002	1.011	1.023	0.006	0.786	0.478	0.36	1.29	2.14	0.435	8.36%
1/20/2022	0.002	1.076	1.003	0.006	0.788	0.477	0.43	1.37	2.10	0.438	8.34%
1/21/2022	0.002	1.126	1.001	0.006	0.787	0.479	0.37	1.43	2.09	0.436	8.36%
1/24/2022	0.002	1.141	0.982	0.006	0.780	0.479	0.33	1.46	2.05	0.438	8.35%
1/25/2022	0.001	1.209	0.902	0.006	0.774	0.477	0.23	1.56	1.89	0.440	8.28%
1/26/2022	0.001	1.114	1.012	0.005	0.759	0.470	0.10	1.47	2.15	0.452	8.13%
1/27/2022	0.000	1.210	1.025	0.005	0.764	0.469	0.04	1.58	2.19	0.455	8.12%
1/28/2022	0.000	1.260	1.021	0.005	0.765	0.468	0.08	1.65	2.18	0.456	8.10%
1/31/2022	0.000	1.387	0.962	0.005	0.773	0.469	0.00	1.80	2.05	0.460	8.09%
2/1/2022	0.000	1.310	0.991	0.005	0.771	0.467	-0.05	1.70	2.12	0.460	8.06%
2/2/2022	0.000	1.313	0.995	0.005	0.769	0.466	-0.03	1.71	2.13	0.279	8.04%
2/3/2022	-0.002	1.224	1.052	0.005	0.707	0.428	-0.44	1.73	2.46	0.322	7.42%
2/4/2022	0.000	1.339	1.104	0.005	0.664	0.406	-0.08	2.02	2.72	0.358	7.03%
2/7/2022	0.002	1.340	1.247	0.004	0.620	0.380	0.37	2.16	3.28	0.402	6.58%
2/8/2022	0.001	1.355	1.235	0.004	0.618	0.379	0.34	2.19	3.26	0.372	6.56%
2/9/2022	0.002	1.357	1.228	0.004	0.615	0.378	0.37	2.21	3.25	0.373	6.56%
2/10/2022	0.002	1.383	1.190	0.004	0.607	0.374	0.51	2.28	3.18	0.381	6.48%
2/11/2022	0.003	1.306	1.159	0.004	0.611	0.376	0.65	2.14	3.08	0.372	6.53%
2/14/2022	0.003	1.318	1.162	0.004	0.611	0.376	0.71	2.16	3.09	0.371	6.54%
2/15/2022	0.003	1.314	1.171	0.004	0.610	0.375	0.69	2.15	3.13	0.369	6.52%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/16/2022	0.003	1.280	1.161	0.004	0.610	0.375	0.66	2.10	3.10	0.367	6.53%
2/17/2022	0.003	1.279	1.170	0.004	0.609	0.375	0.62	2.10	3.12	0.370	6.53%
2/18/2022	0.002	1.312	1.154	0.004	0.605	0.375	0.53	2.17	3.08	0.370	6.51%
2/22/2022	0.002	1.302	1.151	0.004	0.603	0.374	0.56	2.16	3.08	0.374	6.50%
2/23/2022	0.002	1.359	1.135	0.004	0.603	0.376	0.48	2.25	3.02	0.373	6.52%
2/24/2022	0.002	1.397	1.136	0.004	0.602	0.376	0.46	2.32	3.02	0.376	6.52%
2/25/2022	0.002	1.458	1.142	0.004	0.608	0.376	0.48	2.40	3.04	0.374	6.52%
2/28/2022	0.002	1.391	1.157	0.004	0.602	0.376	0.49	2.31	3.08	0.374	6.52%
3/1/2022	0.002	1.430	1.150	0.004	0.610	0.376	0.52	2.34	3.06	0.375	6.52%
3/2/2022	0.002	1.473	1.160	0.004	0.605	0.375	0.43	2.44	3.09	0.377	6.51%
3/3/2022	0.002	1.443	1.172	0.004	0.600	0.378	0.40	2.41	3.10	0.378	6.51%
3/4/2022	0.002	1.428	1.178	0.004	0.602	0.378	0.38	2.37	3.12	0.374	6.52%
3/7/2022	0.002	1.471	1.184	0.004	0.602	0.377	0.49	2.44	3.14	0.378	6.51%
3/8/2022	0.002	1.488	1.206	0.004	0.584	0.375	0.41	2.55	3.21	0.381	6.49%
3/9/2022	0.001	1.444	1.172	0.004	0.582	0.375	0.34	2.48	3.13	0.378	6.47%
3/10/2022	0.001	1.430	1.163	0.004	0.579	0.375	0.34	2.47	3.10	0.378	6.47%
3/11/2022	0.002	1.430	1.161	0.004	0.579	0.376	0.36	2.47	3.09	0.378	6.47%
3/14/2022	0.002	1.438	1.159	0.004	0.578	0.376	0.36	2.49	3.08	0.381	6.47%
3/15/2022	0.001	1.477	1.172	0.004	0.578	0.377	0.34	2.55	3.11	0.381	6.48%
3/16/2022	0.002	1.498	1.170	0.004	0.575	0.377	0.37	2.61	3.10	0.382	6.48%
3/17/2022	0.001	1.477	1.142	0.004	0.564	0.371	0.18	2.62	3.08	0.389	6.39%
3/18/2022	0.001	1.462	1.123	0.004	0.564	0.371	0.22	2.59	3.02	0.386	6.38%
3/21/2022	0.001	1.448	1.115	0.004	0.564	0.373	0.18	2.57	2.99	0.385	6.38%
3/22/2022	0.001	1.441	1.136	0.004	0.563	0.372	0.24	2.56	3.05	0.387	6.37%
3/23/2022	0.001	1.437	1.126	0.004	0.563	0.377	0.22	2.55	2.99	0.386	6.37%
3/24/2022	0.001	1.427	1.087	0.004	0.564	0.379	0.30	2.53	2.86	0.382	6.39%
3/25/2022	0.001	1.422	1.087	0.004	0.563	0.380	0.30	2.53	2.86	0.382	6.39%
3/28/2022	0.002	1.517	1.055	0.004	0.563	0.376	0.38	2.70	2.80	0.386	6.36%
3/29/2022	0.002	1.513	1.048	0.004	0.562	0.377	0.39	2.69	2.78	0.385	6.36%
3/30/2022	0.001	1.501	1.021	0.004	0.563	0.376	0.34	2.67	2.71	0.384	6.37%
3/31/2022	0.001	1.498	1.033	0.004	0.564	0.379	0.34	2.66	2.73	0.384	6.37%
4/1/2022	0.001	1.503	1.029	0.004	0.561	0.378	0.31	2.68	2.72	0.384	6.37%
4/4/2022	0.002	1.556	1.009	0.004	0.561	0.375	0.37	2.77	2.69	0.386	6.35%
4/5/2022	0.002	1.561	0.998	0.004	0.561	0.375	0.40	2.79	2.66	0.402	6.34%
4/6/2022	0.001	1.672	1.004	0.004	0.569	0.382	0.24	2.94	2.63	0.385	6.44%
4/7/2022	0.001	1.722	0.979	0.004	0.566	0.382	0.18	3.04	2.57	0.383	6.45%
4/8/2022	0.001	1.737	0.962	0.004	0.568	0.382	0.14	3.06	2.52	0.382	6.46%
4/11/2022	0.001	1.797	0.899	0.004	0.564	0.380	0.25	3.19	2.36	0.386	6.40%
4/12/2022	0.001	1.788	0.908	0.004	0.563	0.381	0.28	3.17	2.38	0.386	6.40%
4/13/2022	0.001	1.773	0.920	0.004	0.565	0.383	0.31	3.14	2.40	0.387	6.40%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
4/14/2022	0.001	1.787	0.916	0.004	0.565	0.382	0.34	3.16	2.40	0.388	6.39%
4/18/2022	0.002	1.787	0.915	0.004	0.564	0.382	0.36	3.17	2.40	0.388	6.39%
4/19/2022	0.002	1.781	0.921	0.004	0.562	0.377	0.36	3.17	2.44	0.393	6.39%
4/20/2022	0.001	1.600	0.973	0.004	0.567	0.382	0.24	2.82	2.55	0.381	6.47%
4/21/2022	0.001	1.616	0.960	0.004	0.569	0.383	0.13	2.84	2.51	0.378	6.49%
4/22/2022	0.000	1.665	0.961	0.004	0.569	0.383	0.04	2.93	2.51	0.378	6.49%
4/25/2022	0.000	1.496	0.987	0.004	0.566	0.384	0.06	2.65	2.57	0.375	6.50%
4/26/2022	0.000	1.502	0.991	0.004	0.567	0.385	0.09	2.65	2.57	0.373	6.51%
4/27/2022	0.001	1.382	0.962	0.004	0.567	0.387	0.13	2.44	2.48	0.364	6.55%
4/28/2022	0.000	1.361	0.981	0.004	0.566	0.386	0.05	2.41	2.54	0.365	6.53%
4/29/2022	0.000	1.285	1.020	0.004	0.556	0.384	0.00	2.31	2.66	0.365	6.54%
5/2/2022	0.000	1.174	1.044	0.004	0.547	0.385	0.06	2.15	2.71	0.362	6.55%
5/3/2022	0.001	1.188	1.031	0.004	0.545	0.383	0.12	2.18	2.69	0.364	6.53%
5/4/2022	0.001	1.190	1.029	0.004	0.546	0.386	0.13	2.18	2.67	0.363	6.53%
5/5/2022	0.000	1.117	1.051	0.004	0.539	0.386	0.05	2.07	2.72	0.362	6.53%
5/6/2022	0.000	1.044	1.035	0.004	0.536	0.387	0.11	1.95	2.67	0.360	6.55%
5/9/2022	0.001	1.062	1.021	0.004	0.534	0.381	0.15	1.99	2.68	0.361	6.55%
5/10/2022	0.001	1.030	0.997	0.004	0.532	0.380	0.21	1.94	2.63	0.361	6.54%
5/11/2022	0.001	1.028	1.003	0.004	0.531	0.376	0.21	1.94	2.67	0.368	6.54%
5/12/2022	0.001	1.009	1.063	0.004	0.539	0.376	0.15	1.87	2.82	0.363	6.57%
5/13/2022	0.001	1.018	1.054	0.004	0.538	0.372	0.15	1.89	2.83	0.366	6.57%
5/16/2022	0.001	1.019	1.053	0.004	0.536	0.372	0.13	1.90	2.83	0.366	6.56%
5/17/2022	0.001	0.995	1.067	0.004	0.536	0.372	0.14	1.86	2.87	0.366	6.57%
5/18/2022	0.001	1.041	1.060	0.004	0.535	0.371	0.12	1.95	2.86	0.367	6.56%
5/19/2022	0.001	0.962	1.082	0.004	0.525	0.371	0.12	1.83	2.92	0.368	6.56%
5/20/2022	0.001	0.931	1.114	0.004	0.525	0.371	0.19	1.77	3.00	0.366	6.57%
5/23/2022	0.001	0.917	1.128	0.004	0.526	0.371	0.21	1.75	3.04	0.368	6.58%
5/24/2022	0.001	0.997	1.092	0.004	0.525	0.372	0.31	1.90	2.93	0.369	6.58%
5/25/2022	0.001	1.006	1.101	0.004	0.526	0.373	0.26	1.91	2.95	0.369	6.59%
5/26/2022	0.001	1.025	1.090	0.004	0.525	0.372	0.25	1.95	2.93	0.368	6.59%
5/27/2022	0.000	0.946	1.114	0.004	0.520	0.371	0.10	1.82	3.00	0.367	6.59%
5/31/2022	0.001	0.938	1.117	0.004	0.518	0.371	0.12	1.81	3.01	0.374	6.58%
6/1/2022	0.001	0.966	1.050	0.004	0.524	0.374	0.22	1.84	2.80	0.364	6.66%
6/2/2022	0.000	0.978	1.057	0.004	0.527	0.376	0.05	1.86	2.81	0.356	6.70%
6/3/2022	0.000	0.990	1.051	0.004	0.521	0.375	0.03	1.90	2.81	0.358	6.69%
6/6/2022	0.000	0.921	1.089	0.004	0.517	0.373	0.08	1.78	2.92	0.355	6.71%
6/7/2022	0.000	0.916	1.091	0.004	0.520	0.378	0.04	1.76	2.88	0.354	6.71%
6/8/2022	0.000	0.915	1.089	0.004	0.520	0.376	0.02	1.76	2.90	0.354	6.71%
6/9/2022	0.000	0.898	1.108	0.004	0.518	0.376	0.05	1.73	2.95	0.358	6.70%
6/10/2022	0.000	0.898	1.129	0.004	0.518	0.376	0.06	1.73	3.00	0.359	6.70%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/13/2022	0.000	0.741	1.170	0.004	0.514	0.375	0.01	1.44	3.12	0.370	6.67%
6/14/2022	0.000	0.874	1.169	0.004	0.511	0.377	-0.06	1.71	3.10	0.365	6.71%
6/15/2022	0.000	0.863	1.173	0.004	0.512	0.379	0.04	1.68	3.10	0.364	6.72%
6/16/2022	0.000	0.874	1.197	0.004	0.509	0.376	-0.01	1.72	3.18	0.367	6.68%
6/17/2022	0.000	0.812	1.221	0.004	0.502	0.376	0.05	1.62	3.25	0.366	6.69%
6/21/2022	0.000	0.858	1.178	0.004	0.500	0.369	-0.01	1.72	3.19	0.366	6.69%
6/22/2022	0.000	0.825	1.175	0.004	0.498	0.369	-0.07	1.66	3.18	0.365	6.68%
6/23/2022	0.000	0.783	1.215	0.004	0.497	0.368	0.01	1.57	3.30	0.358	6.69%
6/24/2022	0.000	0.785	1.213	0.004	0.496	0.363	0.00	1.58	3.34	0.358	6.69%
6/27/2022	0.000	0.723	1.226	0.004	0.491	0.363	-0.09	1.47	3.38	0.356	6.70%
6/28/2022	0.000	0.721	1.233	0.004	0.490	0.363	-0.02	1.47	3.40	0.357	6.69%
6/29/2022	0.000	0.720	1.230	0.004	0.488	0.361	-0.11	1.48	3.41	0.359	6.67%
6/30/2022	0.000	0.720	1.231	0.004	0.487	0.361	-0.07	1.48	3.41	0.360	6.66%
7/1/2022	-0.001	0.731	1.227	0.004	0.487	0.361	-0.14	1.50	3.40	0.360	6.67%
7/5/2022	-0.001	0.735	1.192	0.004	0.489	0.362	-0.26	1.50	3.29	0.354	6.69%
7/6/2022	-0.001	0.740	1.181	0.004	0.489	0.360	-0.30	1.51	3.28	0.356	6.70%
7/7/2022	-0.002	0.727	1.195	0.004	0.490	0.362	-0.43	1.48	3.30	0.353	6.71%
7/8/2022	-0.002	0.696	1.215	0.004	0.490	0.362	-0.51	1.42	3.36	0.354	6.70%
7/11/2022	-0.003	0.758	1.172	0.004	0.490	0.361	-0.63	1.55	3.24	0.356	6.67%
7/12/2022	-0.002	0.816	1.158	0.004	0.487	0.359	-0.51	1.68	3.23	0.362	6.62%
7/13/2022	-0.002	0.801	1.168	0.004	0.486	0.358	-0.55	1.65	3.26	0.363	6.62%
7/14/2022	-0.003	0.798	1.179	0.004	0.485	0.358	-0.60	1.65	3.30	0.365	6.60%
7/15/2022	-0.002	0.815	1.157	0.004	0.485	0.357	-0.53	1.68	3.24	0.365	6.60%
7/18/2022	-0.002	0.783	1.174	0.004	0.478	0.353	-0.39	1.64	3.33	0.372	6.51%
7/19/2022	-0.001	0.767	1.182	0.004	0.479	0.353	-0.34	1.60	3.35	0.372	6.51%
7/20/2022	-0.002	0.785	1.161	0.004	0.482	0.355	-0.39	1.63	3.27	0.372	6.51%
7/21/2022	-0.002	0.741	1.171	0.004	0.481	0.354	-0.48	1.54	3.31	0.372	6.49%
7/22/2022	-0.003	0.639	1.202	0.004	0.465	0.343	-0.80	1.37	3.51	0.386	6.29%
7/25/2022	-0.004	0.634	1.203	0.004	0.464	0.341	-0.87	1.37	3.53	0.389	6.26%
7/26/2022	-0.004	0.643	1.199	0.004	0.464	0.341	-0.89	1.38	3.52	0.387	6.27%
7/27/2022	-0.004	0.636	1.203	0.004	0.465	0.343	-0.88	1.37	3.51	0.395	6.27%
7/28/2022	-0.004	0.639	1.211	0.004	0.464	0.342	-0.96	1.38	3.54	0.398	6.26%
7/29/2022	-0.005	0.570	1.244	0.004	0.465	0.346	-1.09	1.23	3.60	0.390	6.30%
8/1/2022	-0.005	0.547	1.259	0.004	0.461	0.343	-1.12	1.19	3.66	0.370	6.28%
8/2/2022	-0.002	0.493	1.260	0.004	0.425	0.316	-0.65	1.16	3.99	0.410	5.79%
8/3/2022	-0.003	0.468	1.279	0.004	0.419	0.312	-0.74	1.12	4.10	0.414	5.73%
8/4/2022	-0.003	0.468	1.279	0.004	0.419	0.312	-0.74	1.12	4.10	0.414	5.73%
8/5/2022	-0.003	0.555	1.192	0.004	0.422	0.313	-0.89	1.32	3.81	0.406	5.77%
8/8/2022	-0.004	0.569	1.155	0.004	0.417	0.309	-1.03	1.37	3.73	0.414	5.72%
8/9/2022	-0.003	0.566	1.164	0.004	0.420	0.312	-0.88	1.35	3.73	0.407	5.75%



## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/10/2022	-0.003	0.622	1.097	0.004	0.423	0.315	-0.88	1.47	3.49	0.403	5.75%
8/11/2022	-0.004	0.563	1.124	0.004	0.422	0.316	-1.01	1.33	3.56	0.402	5.75%
8/12/2022	-0.004	0.531	1.154	0.004	0.426	0.320	-1.03	1.25	3.61	0.404	5.75%
8/15/2022	-0.004	0.550	1.133	0.004	0.422	0.318	-1.13	1.30	3.56	0.406	5.71%
8/16/2022	-0.004	0.559	1.121	0.004	0.422	0.317	-1.19	1.33	3.54	0.405	5.71%
8/17/2022	-0.004	0.580	1.101	0.004	0.421	0.317	-1.13	1.38	3.48	0.430	5.71%
8/18/2022	-0.004	0.451	1.209	0.004	0.422	0.318	-0.99	1.07	3.80	0.436	5.67%
8/19/2022	-0.004	0.477	1.194	0.004	0.421	0.317	-0.98	1.13	3.76	0.435	5.67%
8/22/2022	-0.004	0.493	1.182	0.004	0.421	0.320	-0.98	1.17	3.70	0.435	5.67%
8/23/2022	-0.004	0.498	1.179	0.004	0.420	0.320	-1.00	1.19	3.69	0.435	5.67%
8/24/2022	-0.004	0.523	1.135	0.004	0.419	0.321	-1.05	1.25	3.53	0.437	5.65%
8/25/2022	-0.004	0.497	1.167	0.004	0.421	0.322	-0.98	1.18	3.62	0.432	5.68%
8/26/2022	-0.004	0.479	1.176	0.004	0.419	0.321	-1.01	1.14	3.66	0.377	5.67%
8/29/2022	-0.003	0.371	1.169	0.004	0.418	0.322	-0.74	0.89	3.63	0.373	5.68%
8/30/2022	-0.003	0.386	1.168	0.004	0.420	0.323	-0.86	0.92	3.61	0.348	5.71%
8/31/2022	-0.003	0.379	1.169	0.004	0.419	0.323	-0.84	0.90	3.62	0.346	5.70%
9/1/2022	-0.003	0.386	1.164	0.004	0.417	0.322	-0.86	0.93	3.62	0.346	5.69%
9/2/2022	-0.003	0.387	1.170	0.004	0.413	0.318	-0.79	0.94	3.68	0.350	5.65%
9/6/2022	-0.003	0.390	1.163	0.004	0.413	0.318	-0.83	0.94	3.66	0.361	5.65%
9/7/2022	-0.002	0.434	1.102	0.004	0.419	0.322	-0.64	1.04	3.42	0.338	5.74%
9/8/2022	-0.002	0.434	1.101	0.004	0.418	0.321	-0.65	1.04	3.43	0.340	5.73%
9/9/2022	-0.002	0.450	1.078	0.004	0.417	0.318	-0.67	1.08	3.39	0.345	5.73%
9/12/2022	-0.002	0.519	1.047	0.004	0.417	0.319	-0.64	1.24	3.29	0.340	5.74%
9/13/2022	-0.002	0.532	1.042	0.004	0.416	0.318	-0.66	1.28	3.28	0.343	5.74%
9/14/2022	-0.002	0.540	1.043	0.004	0.412	0.317	-0.67	1.31	3.28	0.346	5.72%
9/15/2022	-0.002	0.537	1.052	0.004	0.412	0.317	-0.61	1.30	3.32	0.339	5.72%
9/16/2022	-0.003	0.552	1.036	0.004	0.410	0.316	-0.69	1.35	3.27	0.338	5.72%
9/19/2022	-0.003	0.552	1.036	0.004	0.410	0.317	-0.69	1.35	3.27	0.338	5.72%
9/20/2022	-0.003	0.597	1.002	0.004	0.407	0.314	-0.83	1.47	3.19	0.374	5.69%
9/21/2022	-0.002	0.497	1.047	0.004	0.425	0.328	-0.54	1.17	3.19	0.316	5.94%
9/22/2022	-0.002	0.518	1.022	0.004	0.424	0.327	-0.63	1.22	3.13	0.363	5.92%
9/23/2022	-0.001	0.382	1.085	0.004	0.447	0.345	-0.28	0.85	3.14	0.308	6.26%
9/26/2022	-0.002	0.478	1.058	0.004	0.452	0.350	-0.44	1.06	3.02	0.282	6.34%
9/27/2022	-0.002	0.440	1.072	0.004	0.455	0.353	-0.39	0.97	3.03	0.276	6.37%
9/28/2022	-0.002	0.437	1.075	0.004	0.453	0.351	-0.39	0.96	3.06	0.275	6.36%
9/29/2022	-0.002	0.451	1.005	0.004	0.456	0.351	-0.50	0.99	2.86	0.266	6.39%
9/30/2022	-0.002	0.450	1.001	0.004	0.454	0.351	-0.45	0.99	2.85	0.266	6.39%
10/3/2022	-0.002	0.462	0.994	0.004	0.454	0.351	-0.47	1.02	2.83	0.266	6.39%
10/4/2022	-0.002	0.447	0.995	0.004	0.456	0.355	-0.49	0.98	2.80	0.265	6.39%
10/5/2022	-0.002	0.420	0.997	0.004	0.453	0.354	-0.54	0.93	2.81	0.261	6.38%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/6/2022	-0.002	0.401	1.007	0.004	0.453	0.354	-0.60	0.88	2.84	0.262	6.37%
10/7/2022	-0.002	0.388	1.012	0.004	0.453	0.354	-0.56	0.86	2.86	0.262	6.37%
10/10/2022	-0.002	0.398	1.011	0.004	0.451	0.354	-0.58	0.88	2.86	0.266	6.37%
10/11/2022	-0.003	0.415	1.005	0.004	0.452	0.355	-0.63	0.92	2.83	0.261	6.39%
10/12/2022	-0.003	0.425	0.997	0.004	0.452	0.354	-0.65	0.94	2.81	0.261	6.39%
10/13/2022	-0.003	0.423	0.998	0.004	0.451	0.354	-0.66	0.94	2.82	0.261	6.39%
10/14/2022	-0.003	0.422	0.997	0.004	0.449	0.353	-0.70	0.94	2.82	0.262	6.38%
10/17/2022	-0.003	0.436	0.996	0.004	0.447	0.353	-0.65	0.98	2.83	0.263	6.37%
10/18/2022	-0.003	0.438	0.979	0.004	0.446	0.353	-0.63	0.98	2.77	0.263	6.36%
10/19/2022	-0.003	0.407	1.000	0.004	0.446	0.354	-0.69	0.91	2.83	0.263	6.36%
10/20/2022	-0.003	0.404	1.015	0.004	0.443	0.350	-0.63	0.91	2.90	0.265	6.35%
10/21/2022	-0.002	0.403	1.014	0.004	0.443	0.350	-0.58	0.91	2.90	0.265	6.35%
10/24/2022	-0.002	0.402	1.014	0.004	0.443	0.350	-0.58	0.91	2.90	0.266	6.35%
10/25/2022	-0.002	0.396	1.013	0.004	0.443	0.350	-0.60	0.89	2.89	0.265	6.36%
10/26/2022	-0.003	0.391	1.013	0.004	0.441	0.349	-0.62	0.88	2.90	0.267	6.34%
10/27/2022	-0.002	0.375	1.028	0.004	0.440	0.348	-0.59	0.85	2.96	0.267	6.35%
10/28/2022	-0.002	0.379	1.019	0.004	0.439	0.347	-0.56	0.86	2.93	0.268	6.34%
10/31/2022	-0.002	0.378	1.029	0.004	0.439	0.346	-0.52	0.86	2.98	0.268	6.34%
11/1/2022	-0.002	0.383	1.025	0.004	0.439	0.346	-0.49	0.87	2.97	0.268	6.34%
11/2/2022	-0.002	0.398	1.004	0.004	0.438	0.345	-0.56	0.91	2.91	0.267	6.33%
11/3/2022	-0.003	0.405	0.972	0.004	0.424	0.336	-0.79	0.96	2.90	0.278	6.16%
11/4/2022	-0.003	0.416	0.974	0.004	0.423	0.336	-0.79	0.98	2.90	0.278	6.16%
11/7/2022	-0.003	0.432	0.965	0.004	0.421	0.334	-0.76	1.03	2.88	0.182	6.15%
11/8/2022	-0.004	0.319	1.064	0.004	0.423	0.338	-0.92	0.75	3.15	0.187	6.12%
11/9/2022	-0.003	0.320	1.065	0.004	0.423	0.337	-0.89	0.76	3.16	0.187	6.12%
11/10/2022	-0.003	0.336	1.040	0.004	0.418	0.335	-0.76	0.80	3.10	0.187	6.08%
11/11/2022	-0.003	0.269	1.049	0.004	0.406	0.332	-0.71	0.66	3.16	0.189	6.05%
11/14/2022	-0.003	0.292	1.037	0.004	0.406	0.332	-0.68	0.72	3.12	0.191	6.06%
11/15/2022	-0.002	0.263	1.060	0.004	0.407	0.333	-0.53	0.65	3.18	0.185	6.08%
11/16/2022	-0.002	0.269	1.049	0.004	0.403	0.330	-0.44	0.67	3.18	0.199	6.03%
11/17/2022	-0.002	0.284	1.052	0.004	0.407	0.333	-0.59	0.70	3.16	0.185	6.08%
11/18/2022	-0.001	0.245	1.076	0.004	0.391	0.320	-0.33	0.63	3.37	0.200	5.84%
11/21/2022	-0.001	0.242	1.075	0.004	0.390	0.319	-0.38	0.62	3.37	0.201	5.83%
11/22/2022	-0.002	0.265	1.055	0.004	0.389	0.318	-0.49	0.68	3.32	0.202	5.80%
11/23/2022	-0.002	0.264	1.055	0.004	0.388	0.318	-0.49	0.68	3.32	0.203	5.80%
11/25/2022	-0.002	0.275	1.048	0.004	0.387	0.318	-0.47	0.71	3.30	0.203	5.80%
11/28/2022	-0.002	0.265	1.051	0.004	0.386	0.316	-0.54	0.69	3.33	0.204	5.78%
11/29/2022	-0.002	0.236	1.073	0.004	0.390	0.319	-0.52	0.61	3.37	0.204	5.77%
11/30/2022	-0.002	0.247	1.067	0.004	0.390	0.319	-0.47	0.63	3.35	0.204	5.77%
12/1/2022	-0.002	0.233	1.066	0.004	0.391	0.319	-0.49	0.60	3.34	0.204	5.77%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/2/2022	-0.002	0.234	1.047	0.004	0.390	0.319	-0.45	0.60	3.28	0.203	5.76%
12/5/2022	-0.001	0.230	1.056	0.004	0.391	0.319	-0.39	0.59	3.31	0.204	5.77%
12/6/2022	-0.001	0.242	1.050	0.004	0.391	0.320	-0.40	0.62	3.28	0.202	5.77%
12/7/2022	-0.001	0.268	1.025	0.004	0.396	0.323	-0.34	0.68	3.17	0.207	5.77%
12/8/2022	-0.001	0.242	1.034	0.004	0.397	0.325	-0.30	0.61	3.18	0.198	5.79%
12/9/2022	-0.001	0.249	1.029	0.004	0.397	0.326	-0.30	0.63	3.16	0.197	5.78%
12/12/2022	-0.001	0.270	0.991	0.004	0.396	0.325	-0.20	0.68	3.05	0.199	5.78%
12/13/2022	0.000	0.316	0.966	0.004	0.398	0.327	-0.08	0.79	2.95	0.195	5.79%
12/14/2022	0.000	0.320	0.968	0.004	0.402	0.330	-0.06	0.80	2.93	0.194	5.79%
12/15/2022	0.000	0.337	0.957	0.004	0.401	0.329	-0.12	0.84	2.91	0.204	5.79%
12/16/2022	-0.001	0.386	0.957	0.004	0.400	0.330	-0.14	0.96	2.90	0.200	5.80%
12/19/2022	0.000	0.384	0.955	0.004	0.400	0.330	-0.11	0.96	2.90	0.199	5.80%
12/20/2022	0.000	0.352	0.983	0.004	0.405	0.334	-0.07	0.87	2.94	0.200	5.79%
12/21/2022	0.000	0.316	0.989	0.004	0.399	0.329	0.06	0.79	3.00	0.202	5.72%
12/22/2022	0.000	0.303	0.991	0.004	0.398	0.329	0.01	0.76	3.01	0.189	5.71%
12/23/2022	0.000	0.369	0.947	0.004	0.400	0.331	-0.09	0.92	2.86	0.181	5.74%
12/27/2022	0.000	0.341	0.971	0.004	0.398	0.329	-0.13	0.86	2.95	0.187	5.75%
12/28/2022	-0.001	0.225	1.079	0.004	0.402	0.331	-0.31	0.56	3.26	0.184	5.75%
12/29/2022	-0.001	0.242	1.065	0.004	0.401	0.330	-0.28	0.60	3.22	0.185	5.75%
12/30/2022	-0.001	0.242	1.070	0.004	0.400	0.330	-0.23	0.61	3.24	0.186	5.74%
1/3/2023	-0.001	0.241	1.071	0.004	0.400	0.330	-0.22	0.60	3.24	0.188	5.74%
1/4/2023	-0.001	0.232	1.083	0.004	0.401	0.331	-0.29	0.58	3.27	0.190	5.75%
1/5/2023	-0.001	0.231	1.084	0.004	0.400	0.330	-0.32	0.58	3.29	0.187	5.74%
1/6/2023	-0.001	0.216	1.103	0.004	0.400	0.332	-0.37	0.54	3.33	0.188	5.73%
1/9/2023	-0.002	0.170	1.163	0.004	0.398	0.332	-0.51	0.43	3.50	0.192	5.72%
1/10/2023	-0.002	0.201	1.132	0.004	0.395	0.329	-0.46	0.51	3.44	0.196	5.72%
1/11/2023	-0.001	0.190	1.152	0.004	0.396	0.330	-0.38	0.48	3.50	0.205	5.74%
1/12/2023	-0.001	0.253	1.116	0.004	0.399	0.333	-0.23	0.63	3.35	0.191	5.79%
1/13/2023	-0.001	0.255	1.105	0.004	0.400	0.334	-0.31	0.64	3.31	0.187	5.80%
1/17/2023	-0.001	0.259	1.100	0.004	0.402	0.335	-0.31	0.64	3.28	0.187	5.80%
1/18/2023	-0.001	0.261	1.091	0.004	0.402	0.336	-0.26	0.65	3.25	0.185	5.80%
1/19/2023	-0.001	0.260	1.092	0.004	0.401	0.336	-0.25	0.65	3.25	0.186	5.80%
1/20/2023	-0.001	0.278	1.057	0.004	0.401	0.338	-0.21	0.69	3.13	0.183	5.79%
1/23/2023	-0.001	0.302	1.046	0.004	0.400	0.338	-0.17	0.75	3.10	0.183	5.80%
1/24/2023	0.000	0.304	1.035	0.004	0.398	0.337	-0.05	0.76	3.08	0.216	5.78%
1/25/2023	0.000	0.302	1.036	0.004	0.400	0.337	-0.04	0.75	3.07	0.215	5.79%
1/26/2023	-0.001	0.303	1.027	0.004	0.400	0.337	-0.20	0.76	3.05	0.211	5.79%
1/27/2023	-0.001	0.313	1.026	0.004	0.398	0.336	-0.22	0.79	3.05	0.212	5.79%
1/30/2023	-0.001	0.319	1.022	0.004	0.399	0.337	-0.18	0.80	3.03	0.214	5.79%
1/31/2023	-0.001	0.328	1.018	0.004	0.399	0.338	-0.19	0.82	3.01	0.212	5.79%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/1/2023	-0.001	0.332	1.011	0.004	0.399	0.339	-0.20	0.83	2.99	0.210	5.79%
2/2/2023	-0.001	0.335	0.982	0.004	0.396	0.337	-0.24	0.85	2.91	0.212	5.78%
2/3/2023	-0.001	0.394	0.939	0.004	0.396	0.338	-0.17	0.99	2.78	0.205	5.80%
2/6/2023	-0.001	0.395	0.939	0.004	0.397	0.339	-0.18	0.99	2.77	0.206	5.80%
2/7/2023	-0.001	0.406	0.938	0.004	0.398	0.339	-0.24	1.02	2.76	0.205	5.80%
2/8/2023	-0.001	0.396	0.942	0.004	0.397	0.339	-0.29	1.00	2.78	0.205	5.79%
2/9/2023	-0.001	0.391	0.944	0.004	0.397	0.338	-0.25	0.99	2.79	0.206	5.79%
2/10/2023	-0.001	0.399	0.940	0.004	0.397	0.338	-0.28	1.01	2.78	0.205	5.80%
2/13/2023	-0.001	0.400	0.934	0.004	0.397	0.339	-0.31	1.01	2.76	0.205	5.80%
2/14/2023	-0.002	0.387	0.969	0.004	0.395	0.338	-0.50	0.98	2.87	0.209	5.77%
2/15/2023	-0.002	0.384	0.971	0.004	0.395	0.337	-0.53	0.97	2.88	0.211	5.76%
2/16/2023	-0.002	0.398	0.955	0.004	0.395	0.338	-0.48	1.01	2.82	0.209	5.76%
2/17/2023	-0.002	0.396	0.960	0.004	0.395	0.339	-0.44	1.00	2.83	0.210	5.76%
2/21/2023	-0.002	0.389	0.967	0.004	0.394	0.338	-0.42	0.99	2.87	0.213	5.76%
2/22/2023	-0.002	0.389	0.963	0.004	0.394	0.338	-0.41	0.99	2.85	0.209	5.76%
2/23/2023	-0.002	0.389	0.967	0.004	0.393	0.338	-0.44	0.99	2.86	0.210	5.75%
2/24/2023	-0.001	0.366	0.976	0.004	0.392	0.336	-0.34	0.94	2.90	0.210	5.73%
2/27/2023	-0.001	0.358	0.967	0.004	0.391	0.335	-0.28	0.91	2.89	0.208	5.72%
2/28/2023	-0.001	0.351	0.952	0.004	0.390	0.334	-0.37	0.90	2.85	0.206	5.71%
3/1/2023	-0.001	0.356	0.950	0.004	0.391	0.334	-0.36	0.91	2.84	0.206	5.71%
3/2/2023	-0.001	0.353	0.953	0.004	0.391	0.334	-0.36	0.90	2.85	0.206	5.71%
3/3/2023	-0.001	0.336	0.961	0.004	0.391	0.334	-0.29	0.86	2.88	0.207	5.70%
3/6/2023	-0.001	0.344	0.960	0.004	0.392	0.334	-0.26	0.88	2.87	0.206	5.70%
3/7/2023	-0.001	0.356	0.936	0.004	0.391	0.333	-0.18	0.91	2.81	0.207	5.69%
3/8/2023	-0.001	0.364	0.938	0.004	0.391	0.333	-0.23	0.93	2.82	0.206	5.69%
3/9/2023	-0.001	0.315	0.964	0.004	0.394	0.334	-0.19	0.80	2.89	0.205	5.68%
3/10/2023	-0.001	0.315	0.959	0.004	0.394	0.334	-0.18	0.80	2.87	0.205	5.68%
3/13/2023	-0.001	0.303	0.956	0.004	0.394	0.334	-0.18	0.77	2.86	0.203	5.68%
3/14/2023	-0.001	0.297	0.963	0.004	0.390	0.330	-0.19	0.76	2.92	0.203	5.68%
3/15/2023	-0.001	0.295	0.958	0.004	0.390	0.330	-0.16	0.76	2.91	0.202	5.68%
3/16/2023	0.000	0.281	0.955	0.004	0.388	0.328	-0.06	0.72	2.91	0.203	5.65%
3/17/2023	0.000	0.266	0.957	0.004	0.387	0.327	-0.10	0.69	2.93	0.201	5.64%
3/20/2023	0.000	0.264	0.946	0.004	0.387	0.328	-0.12	0.68	2.89	0.199	5.64%
3/21/2023	-0.001	0.262	0.936	0.004	0.386	0.328	-0.17	0.68	2.85	0.197	5.64%
3/22/2023	-0.001	0.251	0.947	0.004	0.384	0.327	-0.18	0.65	2.90	0.203	5.64%
3/23/2023	-0.001	0.261	0.957	0.004	0.386	0.329	-0.24	0.68	2.91	0.199	5.66%
3/24/2023	-0.001	0.259	0.961	0.004	0.386	0.328	-0.22	0.67	2.93	0.199	5.66%
3/27/2023	-0.001	0.254	0.977	0.004	0.385	0.328	-0.28	0.66	2.98	0.200	5.65%
3/28/2023	-0.001	0.252	0.977	0.004	0.385	0.328	-0.29	0.65	2.98	0.200	5.65%
3/29/2023	-0.001	0.253	0.975	0.004	0.387	0.331	-0.33	0.65	2.95	0.200	5.65%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/30/2023	-0.001	0.254	0.975	0.004	0.387	0.331	-0.32	0.66	2.95	0.200	5.65%
3/31/2023	-0.001	0.258	0.984	0.004	0.386	0.331	-0.27	0.67	2.97	0.201	5.65%
4/3/2023	-0.001	0.256	0.979	0.004	0.386	0.331	-0.26	0.66	2.96	0.200	5.65%
4/4/2023	-0.001	0.240	0.988	0.004	0.387	0.331	-0.22	0.62	2.98	0.200	5.64%
4/5/2023	-0.001	0.239	0.989	0.004	0.388	0.333	-0.22	0.62	2.97	0.200	5.64%
4/6/2023	-0.001	0.244	0.985	0.004	0.387	0.333	-0.24	0.63	2.96	0.199	5.64%
4/10/2023	0.000	0.215	0.959	0.004	0.378	0.325	-0.04	0.57	2.95	0.203	5.51%
4/11/2023	0.000	0.165	0.997	0.003	0.378	0.324	0.00	0.44	3.07	0.203	5.50%
4/12/2023	0.000	0.159	1.007	0.003	0.378	0.324	0.07	0.42	3.11	0.204	5.49%
4/13/2023	0.000	0.160	1.006	0.003	0.377	0.324	0.08	0.42	3.11	0.205	5.49%
4/14/2023	0.000	0.159	1.004	0.003	0.377	0.324	0.11	0.42	3.10	0.204	5.49%
4/17/2023	0.000	0.158	1.006	0.003	0.377	0.324	0.09	0.42	3.11	0.207	5.49%
4/18/2023	0.001	0.153	1.015	0.003	0.378	0.325	0.14	0.41	3.12	0.204	5.50%
4/19/2023	0.001	0.150	1.015	0.003	0.378	0.325	0.16	0.40	3.13	0.204	5.50%
4/20/2023	0.000	0.160	1.004	0.003	0.381	0.329	0.14	0.42	3.05	0.203	5.50%
4/21/2023	0.001	0.231	0.975	0.003	0.377	0.326	0.28	0.61	2.99	0.209	5.44%
4/24/2023	0.001	0.223	0.983	0.003	0.374	0.323	0.39	0.60	3.04	0.213	5.40%
4/25/2023	0.002	0.215	0.965	0.003	0.373	0.322	0.44	0.58	3.00	0.211	5.38%
4/26/2023	0.001	0.255	0.962	0.003	0.373	0.321	0.35	0.68	2.99	0.213	5.37%
4/27/2023	0.001	0.266	0.941	0.003	0.372	0.320	0.27	0.72	2.94	0.215	5.36%
4/28/2023	0.001	0.310	0.962	0.003	0.368	0.319	0.22	0.84	3.02	0.220	5.33%
5/1/2023	0.001	0.316	0.958	0.003	0.368	0.319	0.26	0.86	3.00	0.220	5.33%
5/2/2023	0.001	0.337	0.944	0.003	0.373	0.322	0.28	0.90	2.93	0.222	5.33%
5/3/2023	0.001	0.370	0.940	0.003	0.377	0.322	0.20	0.98	2.92	0.222	5.33%
5/4/2023	0.001	0.367	0.946	0.003	0.376	0.321	0.22	0.98	2.94	0.223	5.33%
5/5/2023	0.001	0.365	0.947	0.003	0.376	0.321	0.22	0.97	2.95	0.222	5.33%
5/8/2023	0.001	0.377	0.939	0.003	0.378	0.322	0.22	1.00	2.92	0.224	5.33%
5/9/2023	0.001	0.407	0.937	0.003	0.378	0.322	0.23	1.08	2.91	0.239	5.33%
5/10/2023	0.001	0.372	0.965	0.003	0.386	0.332	0.38	0.96	2.90	0.217	5.41%
5/11/2023	0.001	0.373	0.968	0.003	0.386	0.335	0.39	0.97	2.89	0.215	5.41%
5/12/2023	0.001	0.392	0.943	0.003	0.389	0.339	0.42	1.01	2.78	0.214	5.41%
5/15/2023	0.002	0.429	0.858	0.003	0.387	0.340	0.50	1.11	2.52	0.206	5.38%
5/16/2023	0.002	0.429	0.857	0.003	0.390	0.345	0.48	1.10	2.49	0.207	5.38%
5/17/2023	0.001	0.406	0.858	0.003	0.389	0.343	0.40	1.04	2.50	0.203	5.38%
5/18/2023	0.001	0.433	0.832	0.003	0.388	0.342	0.31	1.12	2.44	0.204	5.36%
5/19/2023	0.001	0.414	0.819	0.003	0.386	0.341	0.21	1.07	2.40	0.200	5.35%
5/22/2023	0.001	0.443	0.805	0.003	0.389	0.341	0.16	1.14	2.36	0.201	5.35%
5/23/2023	0.000	0.473	0.776	0.003	0.389	0.341	0.13	1.22	2.27	0.199	5.34%
5/24/2023	0.000	0.480	0.766	0.003	0.388	0.341	0.09	1.24	2.25	0.199	5.33%
5/25/2023	0.000	0.435	0.786	0.003	0.388	0.340	0.02	1.12	2.31	0.200	5.32%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/26/2023	0.000	0.407	0.796	0.003	0.384	0.335	0.07	1.06	2.38	0.199	5.30%
5/30/2023	0.000	0.365	0.818	0.003	0.382	0.334	-0.03	0.95	2.45	0.198	5.30%
5/31/2023	0.000	0.405	0.801	0.003	0.384	0.334	0.00	1.06	2.40	0.199	5.29%
6/1/2023	0.000	0.404	0.795	0.003	0.384	0.333	-0.02	1.05	2.39	0.198	5.29%
6/2/2023	-0.001	0.330	0.909	0.003	0.376	0.329	-0.24	0.88	2.77	0.211	5.19%
6/5/2023	0.000	0.333	0.887	0.003	0.372	0.325	-0.08	0.89	2.73	0.213	5.13%
6/6/2023	0.000	0.320	0.893	0.003	0.375	0.326	-0.13	0.85	2.74	0.212	5.13%
6/7/2023	-0.001	0.381	0.849	0.003	0.377	0.327	-0.17	1.01	2.59	0.214	5.12%
6/8/2023	0.000	0.401	0.825	0.003	0.379	0.330	-0.09	1.06	2.50	0.212	5.12%
6/9/2023	0.000	0.406	0.820	0.003	0.380	0.332	-0.08	1.07	2.47	0.211	5.12%
6/12/2023	0.000	0.390	0.832	0.003	0.381	0.333	-0.06	1.02	2.50	0.211	5.12%
6/13/2023	0.000	0.393	0.798	0.003	0.380	0.335	0.01	1.03	2.38	0.208	5.11%
6/14/2023	0.000	0.440	0.830	0.003	0.379	0.333	-0.09	1.16	2.49	0.216	5.08%
6/15/2023	0.000	0.318	0.792	0.003	0.374	0.327	0.11	0.85	2.42	0.206	4.99%
6/16/2023	0.000	0.334	0.774	0.003	0.373	0.326	-0.01	0.90	2.38	0.207	4.97%
6/20/2023	0.000	0.335	0.743	0.003	0.372	0.325	-0.11	0.90	2.29	0.205	4.95%
6/21/2023	0.000	0.351	0.739	0.003	0.376	0.325	-0.12	0.93	2.27	0.205	4.95%
6/22/2023	0.000	0.334	0.757	0.003	0.381	0.335	-0.08	0.88	2.26	0.204	4.95%
6/23/2023	0.000	0.350	0.763	0.003	0.381	0.335	-0.02	0.92	2.28	0.206	4.95%
6/26/2023	0.000	0.409	0.704	0.003	0.380	0.334	-0.15	1.08	2.11	0.209	4.92%
6/27/2023	-0.001	0.417	0.693	0.003	0.384	0.341	-0.23	1.09	2.03	0.205	4.92%
6/28/2023	-0.001	0.478	0.661	0.003	0.383	0.338	-0.16	1.25	1.96	0.206	4.92%
6/29/2023	-0.001	0.481	0.659	0.003	0.383	0.338	-0.20	1.26	1.95	0.206	4.92%
6/30/2023	-0.001	0.475	0.652	0.003	0.382	0.337	-0.18	1.24	1.93	0.206	4.92%
7/3/2023	0.000	0.486	0.649	0.003	0.383	0.338	-0.15	1.27	1.92	0.206	4.92%
7/5/2023	0.000	0.484	0.637	0.003	0.382	0.338	-0.05	1.27	1.89	0.224	4.92%
7/6/2023	0.000	0.516	0.645	0.003	0.386	0.343	-0.13	1.34	1.88	0.205	4.97%
7/7/2023	0.000	0.500	0.647	0.003	0.389	0.346	-0.04	1.29	1.87	0.202	4.98%
7/10/2023	0.000	0.485	0.667	0.003	0.387	0.344	0.03	1.25	1.94	0.204	4.96%
7/11/2023	0.000	0.498	0.650	0.003	0.386	0.343	0.00	1.29	1.89	0.203	4.96%
7/12/2023	0.000	0.493	0.657	0.003	0.386	0.343	0.05	1.28	1.91	0.203	4.96%
7/13/2023	0.000	0.490	0.647	0.003	0.385	0.344	0.06	1.27	1.88	0.202	4.95%
7/14/2023	0.000	0.484	0.650	0.003	0.386	0.344	0.04	1.26	1.89	0.202	4.95%
7/17/2023	0.000	0.488	0.648	0.003	0.386	0.344	0.02	1.26	1.88	0.202	4.95%
7/18/2023	0.000	0.485	0.654	0.003	0.386	0.345	0.01	1.26	1.89	0.203	4.95%
7/19/2023	0.000	0.473	0.656	0.003	0.387	0.346	-0.04	1.22	1.90	0.201	4.96%
7/20/2023	0.000	0.471	0.660	0.003	0.388	0.348	-0.04	1.21	1.89	0.200	4.96%
7/21/2023	0.000	0.469	0.660	0.003	0.388	0.349	-0.04	1.21	1.89	0.199	4.96%
7/24/2023	0.000	0.471	0.659	0.003	0.389	0.349	-0.02	1.21	1.89	0.202	4.96%
7/25/2023	0.000	0.457	0.683	0.003	0.388	0.346	-0.02	1.18	1.97	0.200	4.96%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
7/26/2023	0.000	0.456	0.679	0.003	0.388	0.348	-0.03	1.18	1.95	0.200	4.96%
7/27/2023	0.000	0.452	0.687	0.003	0.387	0.347	0.03	1.17	1.98	0.201	4.95%
7/28/2023	0.000	0.451	0.683	0.003	0.388	0.348	0.06	1.16	1.96	0.201	4.95%
7/31/2023	0.000	0.451	0.688	0.003	0.388	0.347	0.07	1.16	1.98	0.183	4.94%
8/1/2023	0.001	0.565	0.598	0.003	0.387	0.346	0.25	1.46	1.73	0.183	4.90%
8/2/2023	0.001	0.603	0.568	0.003	0.391	0.348	0.30	1.54	1.63	0.186	4.90%
8/3/2023	0.000	0.562	0.642	0.003	0.387	0.347	0.13	1.45	1.85	0.191	4.85%
8/4/2023	0.000	0.610	0.600	0.003	0.386	0.346	0.02	1.58	1.73	0.193	4.83%
8/7/2023	0.000	0.625	0.587	0.003	0.385	0.345	-0.03	1.62	1.70	0.197	4.82%
8/8/2023	0.000	0.486	0.737	0.003	0.385	0.348	0.02	1.26	2.12	0.197	4.81%
8/9/2023	0.000	0.499	0.724	0.003	0.386	0.349	-0.01	1.30	2.07	0.197	4.81%
8/10/2023	0.000	0.536	0.678	0.003	0.382	0.346	-0.15	1.40	1.96	0.198	4.77%
8/11/2023	-0.001	0.522	0.707	0.003	0.381	0.346	-0.25	1.37	2.04	0.200	4.76%
8/14/2023	-0.001	0.549	0.712	0.003	0.381	0.346	-0.22	1.44	2.06	0.203	4.75%
8/15/2023	-0.001	0.548	0.717	0.003	0.382	0.347	-0.21	1.43	2.06	0.205	4.75%
8/16/2023	-0.001	0.563	0.706	0.003	0.382	0.347	-0.27	1.47	2.03	0.203	4.75%
8/17/2023	-0.001	0.550	0.728	0.003	0.383	0.349	-0.25	1.44	2.09	0.204	4.75%
8/18/2023	-0.001	0.533	0.741	0.003	0.384	0.351	-0.23	1.39	2.11	0.203	4.75%
8/21/2023	-0.001	0.533	0.740	0.003	0.383	0.350	-0.26	1.39	2.11	0.136	4.75%
8/22/2023	-0.001	0.517	0.751	0.003	0.384	0.351	-0.35	1.35	2.14	0.136	4.74%
8/23/2023	-0.001	0.500	0.758	0.003	0.385	0.351	-0.28	1.30	2.16	0.134	4.75%
8/24/2023	-0.001	0.491	0.758	0.003	0.386	0.351	-0.26	1.27	2.16	0.137	4.75%
8/25/2023	-0.001	0.465	0.758	0.003	0.387	0.352	-0.20	1.20	2.15	0.130	4.76%
8/28/2023	-0.001	0.492	0.709	0.003	0.385	0.351	-0.33	1.28	2.02	0.134	4.73%
8/29/2023	-0.001	0.531	0.691	0.003	0.388	0.353	-0.22	1.37	1.96	0.139	4.75%
8/30/2023	-0.001	0.645	0.732	0.003	0.385	0.351	-0.29	1.67	2.09	0.146	4.71%
8/31/2023	0.000	0.630	0.724	0.003	0.381	0.347	-0.12	1.65	2.09	0.147	4.66%
9/1/2023	-0.001	0.629	0.736	0.003	0.381	0.347	-0.19	1.65	2.12	0.147	4.66%
9/5/2023	-0.001	0.620	0.741	0.003	0.382	0.347	-0.17	1.62	2.14	0.147	4.66%
9/6/2023	0.000	0.597	0.765	0.003	0.384	0.349	-0.11	1.55	2.19	0.148	4.66%
9/7/2023	0.000	0.600	0.761	0.003	0.384	0.350	-0.12	1.56	2.17	0.148	4.66%
9/8/2023	-0.001	0.529	0.879	0.003	0.376	0.344	-0.30	1.41	2.55	0.159	4.55%
9/11/2023	-0.001	0.529	0.879	0.003	0.376	0.346	-0.30	1.41	2.54	0.158	4.55%
9/12/2023	-0.001	0.503	0.913	0.003	0.378	0.353	-0.29	1.33	2.59	0.166	4.55%
9/13/2023	-0.001	0.470	0.914	0.003	0.379	0.352	-0.51	1.24	2.59	0.155	4.54%
9/14/2023	-0.001	0.466	0.913	0.003	0.379	0.352	-0.50	1.23	2.59	0.154	4.54%
9/15/2023	-0.001	0.449	0.902	0.003	0.381	0.353	-0.47	1.18	2.55	0.147	4.54%
9/18/2023	-0.002	0.459	0.881	0.003	0.380	0.353	-0.55	1.21	2.50	0.150	4.53%
9/19/2023	-0.002	0.406	0.933	0.003	0.381	0.353	-0.55	1.06	2.64	0.147	4.53%
9/20/2023	-0.002	0.409	0.929	0.003	0.381	0.353	-0.56	1.07	2.63	0.147	4.53%

## Exhibit-12

## Cassava Common Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/21/2023	-0.001	0.417	0.913	0.003	0.384	0.355	-0.50	1.09	2.57	0.148	4.53%
9/22/2023	-0.003	0.581	0.867	0.003	0.356	0.330	-1.00	1.63	2.63	0.178	4.21%
9/25/2023	-0.003	0.581	0.867	0.003	0.356	0.331	-1.00	1.63	2.62	0.177	4.21%
9/26/2023	-0.004	0.781	0.782	0.002	0.312	0.290	-1.69	2.50	2.70	0.237	3.69%
9/27/2023	-0.003	0.704	0.754	0.002	0.296	0.275	-1.50	2.38	2.74	0.235	3.53%
9/28/2023	-0.004	0.711	0.800	0.002	0.291	0.271	-1.73	2.44	2.95	0.248	3.48%
9/29/2023	-0.004	0.719	0.789	0.002	0.292	0.273	-1.77	2.46	2.89	0.248	3.48%
10/2/2023	-0.004	0.667	0.954	0.002	0.288	0.274	-1.62	2.32	3.48	0.269	3.42%
10/3/2023	-0.003	0.690	0.935	0.002	0.289	0.273	-1.60	2.39	3.42	0.271	3.42%
10/4/2023	-0.003	0.636	0.951	0.002	0.291	0.275	-1.43	2.19	3.45	0.270	3.44%
10/5/2023	-0.003	0.690	0.940	0.002	0.295	0.277	-1.26	2.34	3.39	0.262	3.46%
10/6/2023	-0.003	0.739	0.941	0.002	0.294	0.274	-1.22	2.51	3.43	0.267	3.45%
10/9/2023	-0.003	0.738	0.942	0.002	0.294	0.274	-1.19	2.51	3.43	0.267	3.45%
10/10/2023	-0.003	0.751	0.945	0.002	0.292	0.273	-1.31	2.57	3.46	0.272	3.44%
10/11/2023	-0.003	0.745	0.946	0.002	0.294	0.273	-1.24	2.53	3.46	0.269	3.44%
10/12/2023	-0.003	0.713	0.942	0.002	0.292	0.271	-1.19	2.44	3.47	0.267	3.42%

**Source:** Computations performed by Crowninshield Financial Research, Inc.

**Notes:** Dummy variables were used to control for potentially abnormal returns on Cassava Top-Article-Count event dates. These dates are listed in Exhibit-9 and Exhibit-15. All estimation periods are the 252 trading days prior to each respective date.



## Exhibit-13

## Cassava Common Stock Collective Event Study Results

All 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
9/14/2020	\$7.75	\$3.32	84.77%	1.53%	5.23%	4.75%	80.03%	10.30 ***
11/4/2020	\$11.54	\$9.19	22.77%	1.94%	6.02%	7.40%	15.37%	1.89 *
11/9/2020	\$10.16	\$10.70	-5.18%	1.06%	-0.73%	0.09%	-5.27%	(0.64)
11/13/2020	\$8.37	\$11.18	-28.95%	1.32%	1.25%	2.35%	-31.30%	(3.81) ***
12/14/2020	\$7.76	\$8.12	-4.53%	-0.33%	2.38%	3.32%	-7.85%	(0.96)
1/4/2021	\$7.09	\$6.82	3.88%	-1.32%	-0.59%	-0.76%	4.64%	0.70
2/8/2021	\$60.67	\$44.80	30.32%	0.97%	2.09%	2.79%	27.53%	2.77 ***
2/10/2021	\$49.29	\$57.56	-15.51%	-0.03%	-0.85%	-0.01%	-15.50%	(1.56)
2/16/2021	\$51.83	\$46.12	11.67%	-0.11%	-2.18%	-1.13%	12.80%	1.28
3/9/2021	\$52.05	\$45.02	14.51%	1.67%	2.92%	3.92%	10.59%	1.06
3/23/2021	\$52.39	\$55.81	-6.32%	-1.21%	-4.02%	-2.58%	-3.75%	(0.38)
4/21/2021	\$34.87	\$32.15	8.12%	1.12%	2.00%	2.76%	5.36%	0.55
5/7/2021	\$41.43	\$41.79	-0.87%	0.86%	0.90%	1.66%	-2.53%	(0.26)
6/14/2021	\$75.79	\$77.00	-1.58%	0.13%	-0.08%	0.78%	-2.36%	(0.25)
6/22/2021	\$77.63	\$89.72	-14.47%	0.49%	0.20%	1.24%	-15.71%	(1.65) *
7/29/2021	\$103.35	\$135.30	-26.94%	0.45%	-0.84%	0.38%	-27.32%	(2.85) ***
8/3/2021	\$84.86	\$79.98	5.92%	0.68%	2.17%	3.84%	2.09%	0.21
11/10/2021	\$69.40	\$78.41	-12.21%	-1.05%	-1.33%	-2.15%	-10.05%	(0.94)
1/7/2022	\$47.95	\$49.09	-2.35%	-0.42%	-0.94%	-0.78%	-1.57%	(0.14)
3/1/2022	\$40.17	\$42.51	-5.66%	-1.51%	-0.56%	-3.06%	-2.60%	(0.34)
4/26/2022	\$21.55	\$20.61	4.46%	-2.87%	-3.70%	-8.07%	12.53%	1.64
5/5/2022	\$20.75	\$21.11	-1.72%	-3.70%	-4.12%	-9.24%	7.52%	0.98
5/10/2022	\$19.78	\$18.93	4.39%	0.13%	2.63%	2.32%	2.07%	0.27
8/3/2022	\$18.50	\$19.38	-4.65%	1.49%	3.87%	5.00%	-9.65%	(1.36)
9/23/2022	\$41.87	\$51.06	-19.84%	-1.93%	-1.41%	-2.33%	-17.51%	(2.45) **
10/27/2022	\$34.83	\$35.55	-2.05%	-0.41%	-1.45%	-1.19%	-0.85%	(0.12)
11/3/2022	\$34.21	\$35.72	-4.32%	-0.89%	0.10%	-0.48%	-3.83%	(0.55)
11/7/2022	\$34.11	\$35.27	-3.34%	0.81%	0.48%	0.66%	-4.00%	(0.62)
11/18/2022	\$33.33	\$34.56	-3.62%	0.42%	0.53%	0.71%	-4.33%	(0.70)
11/22/2022	\$32.90	\$32.61	0.89%	1.32%	0.88%	1.23%	-0.34%	(0.06)
12/23/2022	\$31.68	\$33.25	-4.84%	0.55%	-1.52%	-1.27%	-3.56%	(0.59)
1/24/2023	\$29.44	\$36.44	-21.33%	-0.11%	0.37%	0.48%	-21.81%	(3.61) ***
2/28/2023	\$24.70	\$24.78	-0.32%	-0.26%	0.22%	0.15%	-0.48%	(0.08)
3/10/2023	\$24.90	\$24.79	0.44%	-1.66%	-1.45%	-1.66%	2.10%	0.35
3/17/2023	\$26.34	\$26.75	-1.54%	-1.21%	-1.67%	-1.69%	0.15%	0.03
5/1/2023	\$23.34	\$23.22	0.52%	-0.07%	0.95%	1.09%	-0.57%	(0.10)
5/2/2023	\$22.18	\$23.34	-5.10%	-1.23%	-1.43%	-1.27%	-3.83%	(0.68)
5/9/2023	\$26.58	\$23.12	13.95%	-0.39%	0.15%	0.30%	13.65%	2.41 **
7/5/2023	\$22.04	\$25.32	-13.87%	-0.33%	0.30%	0.19%	-14.06%	(2.72) ***
8/3/2023	\$20.84	\$20.98	-0.67%	-0.24%	-0.28%	0.06%	-0.73%	(0.15)
9/14/2023	\$19.68	\$19.53	0.77%	0.90%	0.42%	0.72%	0.04%	0.01

Sources: Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.

## Notes:

"\*" indicates statistical significance at the 90% confidence level.

"\*\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*" indicates statistical significance at the 99% confidence level.

## Exhibit-14

## Cassava Common Stock Collective Event Study Results

8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
9/14/2020	\$7.75	\$3.32	84.77%	1.53%	5.23%	4.76%	80.02%	10.30 ***
11/4/2020	\$11.54	\$9.19	22.77%	1.94%	6.02%	7.34%	15.43%	1.89 *
11/13/2020	\$8.37	\$11.18	-28.95%	1.32%	1.25%	2.30%	-31.25%	(3.81) ***
12/14/2020	\$7.76	\$8.12	-4.53%	-0.33%	2.38%	3.36%	-7.90%	(0.97)
1/4/2021	\$7.09	\$6.82	3.88%	-1.32%	-0.59%	-0.72%	4.61%	0.69
2/8/2021	\$60.67	\$44.80	30.32%	0.97%	2.09%	2.77%	27.55%	2.78 ***
2/10/2021	\$49.29	\$57.56	-15.51%	-0.03%	-0.85%	-0.05%	-15.46%	(1.56)
2/16/2021	\$51.83	\$46.12	11.67%	-0.11%	-2.18%	-1.20%	12.87%	1.29
3/9/2021	\$52.05	\$45.02	14.51%	1.67%	2.92%	3.88%	10.63%	1.07
5/7/2021	\$41.43	\$41.79	-0.87%	0.86%	0.90%	1.77%	-2.63%	(0.28)
6/14/2021	\$75.79	\$77.00	-1.58%	0.13%	-0.08%	0.80%	-2.38%	(0.25)
6/22/2021	\$77.63	\$89.72	-14.47%	0.49%	0.20%	1.28%	-15.76%	(1.66) *
7/29/2021	\$103.35	\$135.30	-26.94%	0.45%	-0.84%	0.34%	-27.27%	(2.86) ***
1/7/2022	\$47.95	\$49.09	-2.35%	-0.42%	-0.94%	-0.88%	-1.47%	(0.14)
4/26/2022	\$21.55	\$20.61	4.46%	-2.87%	-3.70%	-8.30%	12.76%	1.67 *
5/10/2022	\$19.78	\$18.93	4.39%	0.13%	2.63%	2.32%	2.08%	0.27
9/23/2022	\$41.87	\$51.06	-19.84%	-1.93%	-1.41%	-2.40%	-17.44%	(2.43) **
10/27/2022	\$34.83	\$35.55	-2.05%	-0.41%	-1.45%	-1.20%	-0.85%	(0.12)
11/3/2022	\$34.21	\$35.72	-4.32%	-0.89%	0.10%	-0.61%	-3.71%	(0.53)
11/18/2022	\$33.33	\$34.56	-3.62%	0.42%	0.53%	0.62%	-4.24%	(0.69)
11/22/2022	\$32.90	\$32.61	0.89%	1.32%	0.88%	1.14%	-0.26%	(0.04)
12/23/2022	\$31.68	\$33.25	-4.84%	0.55%	-1.52%	-1.18%	-3.66%	(0.61)
1/24/2023	\$29.44	\$36.44	-21.33%	-0.11%	0.37%	0.38%	-21.71%	(3.59) ***
3/10/2023	\$24.90	\$24.79	0.44%	-1.66%	-1.45%	-1.62%	2.07%	0.35
3/17/2023	\$26.34	\$26.75	-1.54%	-1.21%	-1.67%	-1.63%	0.09%	0.01
5/2/2023	\$22.18	\$23.34	-5.10%	-1.23%	-1.43%	-1.23%	-3.87%	(0.69)
5/9/2023	\$26.58	\$23.12	13.95%	-0.39%	0.15%	0.22%	13.73%	2.43 **
7/5/2023	\$22.04	\$25.32	-13.87%	-0.33%	0.30%	0.10%	-13.98%	(2.72) ***
9/14/2023	\$19.68	\$19.53	0.77%	0.90%	0.42%	0.69%	0.07%	0.02

Sources: Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.

## Notes:

"\*" indicates statistical significance at the 90% confidence level.

"\*\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*\*" indicates statistical significance at the 99% confidence level.

## Exhibit-15

## Cassava Common Stock Collective Event Study Results

## Top News Article Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
9/14/2020	\$7.75	\$3.32	84.77%	1.53%	5.23%	-0.49%	85.26%	7.14 ***
11/4/2020	\$11.54	\$9.19	22.77%	1.94%	6.02%	1.60%	21.17%	1.73 *
11/13/2020	\$8.37	\$11.18	-28.95%	1.32%	1.25%	1.75%	-30.69%	(2.49) **
12/28/2020	\$7.17	\$7.46	-3.96%	0.38%	-1.55%	0.74%	-4.71%	(0.40)
2/2/2021	\$55.44	\$22.99	88.02%	1.39%	1.06%	1.51%	86.52%	7.52 ***
2/8/2021	\$60.67	\$44.80	30.32%	0.97%	2.09%	0.49%	29.83%	2.42 **
2/16/2021	\$51.83	\$46.12	11.67%	-0.11%	-2.18%	0.42%	11.25%	0.91
2/22/2021	\$53.02	\$55.76	-5.04%	-0.97%	-2.44%	-0.54%	-4.50%	(0.36)
4/21/2021	\$34.87	\$32.15	8.12%	1.12%	2.00%	0.59%	7.53%	0.62
6/21/2021	\$89.72	\$79.65	11.91%	1.35%	0.82%	1.05%	10.86%	1.43
6/22/2021	\$77.63	\$89.72	-14.47%	0.49%	0.20%	0.64%	-15.11%	(1.99) **
7/29/2021	\$103.35	\$135.30	-26.94%	0.45%	-0.84%	-0.34%	-26.60%	(3.42) ***
8/3/2021	\$84.86	\$79.98	5.92%	0.68%	2.17%	3.32%	2.60%	0.32
8/25/2021	\$80.86	\$117.83	-37.65%	0.26%	0.47%	1.32%	-38.97%	(4.69) ***
8/27/2021	\$58.34	\$70.85	-19.43%	1.09%	0.33%	1.47%	-20.90%	(2.50) **
8/30/2021	\$53.26	\$58.34	-9.11%	0.30%	-0.23%	0.49%	-9.61%	(1.15)
8/31/2021	\$56.85	\$53.26	6.52%	-0.11%	0.62%	1.29%	5.23%	0.62
9/3/2021	\$50.20	\$54.35	-7.94%	-0.01%	-0.19%	0.39%	-8.33%	(0.99)
9/7/2021	\$47.84	\$50.20	-4.82%	-0.42%	-0.27%	0.06%	-4.88%	(0.58)
9/13/2021	\$47.12	\$50.64	-7.20%	0.20%	-1.22%	-0.72%	-6.48%	(0.76)
9/14/2021	\$41.79	\$47.12	-12.00%	-0.62%	-0.27%	-0.10%	-11.90%	(1.40)
9/22/2021	\$52.31	\$52.86	-1.05%	0.99%	-0.13%	1.19%	-2.23%	(0.27)
9/23/2021	\$60.12	\$52.31	13.92%	1.20%	1.40%	2.99%	10.92%	1.33
9/27/2021	\$68.53	\$61.94	10.11%	-0.10%	-0.78%	-0.34%	10.45%	1.27
10/4/2021	\$54.31	\$60.52	-10.83%	-1.30%	-2.00%	-2.53%	-8.30%	(1.01)
10/6/2021	\$52.51	\$57.17	-8.50%	0.28%	-1.17%	-0.44%	-8.07%	(0.98)
10/25/2021	\$47.81	\$45.71	4.49%	0.55%	1.10%	2.04%	2.45%	0.30
11/4/2021	\$84.40	\$56.66	39.85%	0.29%	-1.78%	-1.15%	41.00%	4.90 ***
11/18/2021	\$48.44	\$47.07	2.87%	0.03%	-0.34%	0.11%	2.76%	0.32
12/21/2021	\$43.67	\$36.77	17.20%	1.97%	0.66%	3.10%	14.10%	1.61
2/11/2022	\$51.01	\$53.05	-3.92%	-1.78%	-0.96%	-3.16%	-0.76%	(0.12)
7/27/2022	\$18.69	\$21.72	-15.02%	2.50%	1.03%	2.47%	-17.49%	(2.79) ***
8/3/2022	\$18.50	\$19.38	-4.65%	1.49%	3.87%	5.37%	-10.01%	(1.75) *
8/17/2022	\$25.72	\$20.21	24.11%	-0.92%	-2.10%	-3.27%	27.38%	4.79 ***
1/24/2023	\$29.44	\$36.44	-21.33%	-0.11%	0.37%	0.33%	-21.66%	(3.75) ***

**Sources:** Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.

**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*" indicates statistical significance at the 99% confidence level.

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
9/14/2020	\$7.75	\$3.32	84.77%	1.53%	5.23%	4.75%	80.03%	10.30 ***
9/15/2020	\$7.02	\$7.75	-9.89%	0.54%	1.10%	1.65%	-11.55%	-1.48
9/16/2020	\$7.04	\$7.02	0.28%	-0.32%	0.04%	0.50%	-0.21%	-0.03
9/17/2020	\$7.09	\$7.04	0.71%	-0.79%	-0.39%	-0.01%	0.72%	0.09
9/18/2020	\$10.07	\$7.09	35.09%	-0.89%	0.40%	0.42%	34.67%	4.43 ***
9/21/2020	\$9.82	\$10.07	-2.51%	-1.26%	-2.50%	-1.51%	-1.01%	-0.12
9/22/2020	\$10.45	\$9.82	6.22%	0.93%	0.83%	1.77%	4.45%	0.55
9/23/2020	\$9.76	\$10.45	-6.83%	-2.43%	-1.39%	-1.10%	-5.73%	-0.71
9/24/2020	\$9.71	\$9.76	-0.51%	0.20%	-0.99%	0.11%	-0.63%	-0.08
9/25/2020	\$11.47	\$9.71	16.66%	1.56%	2.16%	2.99%	13.67%	1.68 *
9/28/2020	\$11.16	\$11.47	-2.74%	1.64%	0.69%	1.95%	-4.69%	-0.57
9/29/2020	\$11.41	\$11.16	2.22%	-0.40%	0.16%	0.82%	1.40%	0.17
9/30/2020	\$11.51	\$11.41	0.87%	0.69%	0.55%	1.51%	-0.64%	-0.08
10/1/2020	\$11.40	\$11.51	-0.96%	0.78%	0.94%	1.85%	-2.81%	-0.34
10/2/2020	\$10.66	\$11.40	-6.71%	-0.78%	-2.21%	-1.26%	-5.45%	-0.67
10/5/2020	\$11.57	\$10.66	8.19%	1.81%	4.30%	5.07%	3.12%	0.38
10/6/2020	\$11.35	\$11.57	-1.92%	-1.20%	-1.18%	-0.59%	-1.33%	-0.16
10/7/2020	\$12.13	\$11.35	6.65%	1.69%	2.18%	3.23%	3.42%	0.42
10/8/2020	\$12.25	\$12.13	0.98%	0.85%	0.26%	1.29%	-0.30%	-0.04
10/9/2020	\$11.92	\$12.25	-2.73%	0.85%	0.79%	1.78%	-4.51%	-0.55
10/12/2020	\$11.43	\$11.92	-4.20%	1.34%	0.73%	1.84%	-6.03%	-0.74
10/13/2020	\$11.22	\$11.43	-1.85%	-0.50%	0.49%	1.10%	-2.96%	-0.36
10/14/2020	\$10.99	\$11.22	-2.07%	-0.60%	-1.28%	-0.55%	-1.52%	-0.19
10/15/2020	\$10.89	\$10.99	-0.91%	-0.08%	-2.35%	-1.40%	0.49%	0.06
10/16/2020	\$10.48	\$10.89	-3.84%	-0.07%	0.49%	1.23%	-5.06%	-0.62
10/19/2020	\$9.84	\$10.48	-6.30%	-1.43%	-1.82%	-1.26%	-5.04%	-0.62
10/20/2020	\$9.40	\$9.84	-4.57%	0.38%	-0.59%	0.32%	-4.89%	-0.60
10/21/2020	\$8.91	\$9.40	-5.35%	-0.34%	-1.61%	-0.86%	-4.49%	-0.55
10/22/2020	\$8.83	\$8.91	-0.90%	0.61%	1.33%	2.26%	-3.16%	-0.39
10/23/2020	\$9.32	\$8.83	5.40%	0.38%	0.26%	1.08%	4.33%	0.53
10/26/2020	\$9.07	\$9.32	-2.72%	-1.83%	-0.92%	-0.54%	-2.18%	-0.27
10/27/2020	\$9.11	\$9.07	0.44%	-0.30%	0.52%	1.19%	-0.75%	-0.09
10/28/2020	\$8.67	\$9.11	-4.95%	-3.34%	-2.57%	-2.51%	-2.44%	-0.30
10/29/2020	\$8.73	\$8.67	0.69%	1.04%	0.62%	1.56%	-0.87%	-0.11
10/30/2020	\$8.21	\$8.73	-6.14%	-1.32%	-2.16%	-1.74%	-4.40%	-0.54
11/2/2020	\$8.93	\$8.21	8.41%	1.20%	0.10%	1.04%	7.37%	0.91
11/3/2020	\$9.19	\$8.93	2.87%	1.86%	1.67%	2.86%	0.01%	0.00
11/4/2020	\$11.54	\$9.19	22.77%	1.94%	6.02%	7.40%	15.37%	1.89 *
11/5/2020	\$10.51	\$11.54	-9.35%	2.09%	-0.11%	1.07%	-10.42%	-1.28
11/6/2020	\$10.70	\$10.51	1.79%	0.00%	-1.57%	-1.02%	2.81%	0.34
11/9/2020	\$10.16	\$10.70	-5.18%	1.06%	-0.73%	0.09%	-5.27%	-0.64
11/10/2020	\$9.98	\$10.16	-1.79%	-0.06%	0.19%	0.97%	-2.76%	-0.34
11/11/2020	\$10.86	\$9.98	8.45%	0.80%	1.18%	2.17%	6.28%	0.77
11/12/2020	\$11.18	\$10.86	2.90%	-0.97%	-0.01%	0.68%	2.23%	0.27
11/13/2020	\$8.37	\$11.18	-28.95%	1.32%	1.25%	2.35%	-31.30%	-3.81 ***
11/16/2020	\$8.13	\$8.37	-2.91%	1.23%	0.00%	0.94%	-3.84%	-0.47
11/17/2020	\$7.95	\$8.13	-2.24%	-0.15%	-0.44%	0.28%	-2.52%	-0.31
11/18/2020	\$7.48	\$7.95	-6.09%	-0.91%	-1.96%	-1.55%	-4.54%	-0.55
11/19/2020	\$7.47	\$7.48	-0.13%	0.58%	0.14%	0.98%	-1.12%	-0.14
11/20/2020	\$7.33	\$7.47	-1.89%	-0.43%	0.62%	1.48%	-3.37%	-0.41
11/23/2020	\$7.10	\$7.33	-3.19%	0.79%	0.24%	1.11%	-4.29%	-0.52
11/24/2020	\$7.25	\$7.10	2.09%	1.50%	-0.66%	0.08%	2.01%	0.24
11/25/2020	\$7.70	\$7.25	6.02%	0.02%	0.54%	1.35%	4.67%	0.57

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
11/27/2020	\$7.76	\$7.70	0.78%	0.40%	3.06%	4.32%	-3.55%	-0.43
11/30/2020	\$7.72	\$7.76	-0.52%	-0.58%	1.09%	1.89%	-2.41%	-0.29
12/1/2020	\$7.53	\$7.72	-2.49%	0.96%	0.37%	1.26%	-3.75%	-0.45
12/2/2020	\$7.31	\$7.53	-2.97%	0.12%	-0.28%	0.35%	-3.31%	-0.40
12/3/2020	\$7.49	\$7.31	2.43%	0.23%	0.89%	1.68%	0.75%	0.09
12/4/2020	\$7.73	\$7.49	3.15%	1.04%	1.00%	1.88%	1.27%	0.15
12/7/2020	\$7.56	\$7.73	-2.22%	-0.02%	-0.04%	0.58%	-2.81%	-0.34
12/8/2020	\$7.91	\$7.56	4.53%	0.43%	1.70%	2.62%	1.91%	0.23
12/9/2020	\$7.87	\$7.91	-0.51%	-0.96%	-1.78%	-1.49%	0.98%	0.12
12/10/2020	\$7.70	\$7.87	-2.18%	0.26%	1.47%	2.39%	-4.57%	-0.56
12/11/2020	\$8.12	\$7.70	5.31%	-0.23%	0.21%	0.85%	4.46%	0.55
12/14/2020	\$7.76	\$8.12	-4.53%	-0.33%	2.38%	3.32%	-7.85%	-0.96
12/15/2020	\$8.05	\$7.76	3.67%	1.30%	0.08%	0.84%	2.83%	0.35
12/16/2020	\$7.93	\$8.05	-1.50%	0.14%	-0.63%	-0.05%	-1.45%	-0.18
12/17/2020	\$8.41	\$7.93	5.88%	0.79%	1.38%	2.31%	3.56%	0.44
12/18/2020	\$8.04	\$8.41	-4.50%	-0.21%	0.40%	1.14%	-5.64%	-0.69
12/21/2020	\$7.83	\$8.04	-2.65%	-0.29%	0.47%	1.12%	-3.77%	-0.46
12/22/2020	\$7.57	\$7.83	-3.38%	0.06%	0.27%	0.85%	-4.23%	-0.52
12/23/2020	\$7.64	\$7.57	0.92%	0.14%	0.30%	0.67%	0.25%	0.03
12/24/2020	\$7.46	\$7.64	-2.38%	0.23%	-0.78%	-0.45%	-1.94%	-0.26
12/28/2020	\$7.17	\$7.46	-3.96%	0.38%	-1.55%	-1.05%	-2.91%	-0.40
12/29/2020	\$6.79	\$7.17	-5.45%	-0.37%	-1.19%	-1.12%	-4.33%	-0.61
12/30/2020	\$7.01	\$6.79	3.19%	0.33%	0.46%	0.62%	2.57%	0.37
12/31/2020	\$6.82	\$7.01	-2.75%	0.36%	-0.67%	-0.51%	-2.24%	-0.32
1/4/2021	\$7.09	\$6.82	3.88%	-1.32%	-0.59%	-0.76%	4.64%	0.70
1/5/2021	\$7.68	\$7.09	7.99%	0.90%	0.15%	0.06%	7.93%	1.26
1/6/2021	\$8.18	\$7.68	6.31%	0.80%	1.30%	1.63%	4.67%	0.74
1/7/2021	\$8.42	\$8.18	2.89%	1.61%	2.88%	3.77%	-0.88%	-0.14
1/8/2021	\$8.38	\$8.42	-0.48%	0.47%	0.61%	0.77%	-1.25%	-0.20
1/11/2021	\$8.29	\$8.38	-1.08%	-0.57%	-0.14%	-0.17%	-0.91%	-0.15
1/12/2021	\$8.18	\$8.29	-1.34%	0.42%	0.24%	0.30%	-1.64%	-0.26
1/13/2021	\$11.45	\$8.18	33.63%	0.09%	-0.22%	-0.21%	33.84%	5.54 ***
1/14/2021	\$10.48	\$11.45	-8.85%	0.00%	2.41%	2.94%	-11.80%	-1.82 *
1/15/2021	\$10.57	\$10.48	0.86%	-0.86%	-0.08%	-0.17%	1.03%	0.16
1/19/2021	\$12.97	\$10.57	20.46%	0.85%	1.89%	2.24%	18.22%	2.80 ***
1/20/2021	\$12.24	\$12.97	-5.79%	1.20%	0.25%	0.63%	-6.43%	-0.97
1/21/2021	\$12.08	\$12.24	-1.32%	-0.09%	-1.05%	-1.04%	-0.28%	-0.04
1/22/2021	\$12.87	\$12.08	6.33%	-0.15%	0.91%	1.15%	5.19%	0.79
1/25/2021	\$15.68	\$12.87	19.75%	0.24%	1.71%	2.15%	17.60%	2.66 ***
1/26/2021	\$19.43	\$15.68	21.44%	-0.29%	-1.81%	-1.90%	23.34%	3.48 ***
1/27/2021	\$19.75	\$19.43	1.63%	-2.51%	-3.04%	-3.33%	4.96%	0.72
1/28/2021	\$18.72	\$19.75	-5.36%	0.92%	0.35%	0.86%	-6.22%	-0.92
1/29/2021	\$19.82	\$18.72	5.71%	-1.78%	0.31%	0.33%	5.38%	0.79
2/1/2021	\$22.99	\$19.82	14.84%	1.71%	1.16%	1.84%	13.00%	1.91 *
2/2/2021	\$55.44	\$22.99	88.02%	1.39%	1.06%	1.76%	86.27%	12.60 ***
2/3/2021	\$87.95	\$55.44	46.15%	0.14%	-0.33%	0.46%	45.69%	5.15 ***
2/4/2021	\$63.43	\$87.95	-32.68%	1.12%	1.44%	2.76%	-35.45%	-3.79 ***
2/5/2021	\$44.80	\$63.43	-34.77%	0.61%	1.66%	2.58%	-37.36%	-3.88 ***
2/8/2021	\$60.67	\$44.80	30.32%	0.97%	2.09%	2.79%	27.53%	2.77 ***
2/9/2021	\$57.56	\$60.67	-5.26%	0.10%	-0.62%	0.26%	-5.52%	-0.55
2/10/2021	\$49.29	\$57.56	-15.51%	-0.03%	-0.85%	-0.01%	-15.50%	-1.56
2/11/2021	\$48.19	\$49.29	-2.26%	0.19%	-0.19%	0.62%	-2.88%	-0.29
2/12/2021	\$46.12	\$48.19	-4.39%	0.47%	0.49%	1.29%	-5.68%	-0.57

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
2/16/2021	\$51.83	\$46.12	11.67%	-0.11%	-2.18%	-1.13%	12.80%	1.28
2/17/2021	\$51.22	\$51.83	-1.18%	-0.23%	0.42%	0.94%	-2.12%	-0.21
2/18/2021	\$51.00	\$51.22	-0.43%	-0.66%	-1.86%	-1.09%	0.66%	0.07
2/19/2021	\$55.76	\$51.00	8.92%	0.27%	1.04%	1.69%	7.23%	0.72
2/22/2021	\$53.02	\$55.76	-5.04%	-0.97%	-2.44%	-1.68%	-3.35%	-0.34
2/23/2021	\$52.37	\$53.02	-1.23%	-0.13%	-1.44%	-0.55%	-0.69%	-0.07
2/24/2021	\$53.06	\$52.37	1.31%	1.12%	0.87%	1.91%	-0.60%	-0.06
2/25/2021	\$50.88	\$53.06	-4.20%	-2.70%	-2.59%	-2.56%	-1.64%	-0.16
2/26/2021	\$48.58	\$50.88	-4.63%	-0.39%	-0.02%	0.58%	-5.21%	-0.52
3/1/2021	\$50.06	\$48.58	3.00%	2.45%	1.61%	3.06%	-0.06%	-0.01
3/2/2021	\$51.55	\$50.06	2.93%	-0.91%	-2.01%	-1.34%	4.27%	0.43
3/3/2021	\$48.70	\$51.55	-5.69%	-1.48%	-3.68%	-2.86%	-2.83%	-0.28
3/4/2021	\$44.48	\$48.70	-9.06%	-1.68%	-2.46%	-1.94%	-7.13%	-0.72
3/5/2021	\$43.41	\$44.48	-2.44%	1.72%	1.97%	3.15%	-5.58%	-0.56
3/8/2021	\$45.02	\$43.41	3.64%	-0.59%	-1.98%	-1.27%	4.91%	0.49
3/9/2021	\$52.05	\$45.02	14.51%	1.67%	2.92%	3.92%	10.59%	1.06
3/10/2021	\$51.60	\$52.05	-0.87%	0.68%	0.07%	1.05%	-1.92%	-0.19
3/11/2021	\$54.29	\$51.60	5.08%	1.41%	2.76%	3.57%	1.51%	0.15
3/12/2021	\$53.44	\$54.29	-1.58%	0.15%	-0.61%	0.39%	-1.97%	-0.20
3/15/2021	\$52.71	\$53.44	-1.38%	0.70%	1.49%	2.19%	-3.56%	-0.36
3/16/2021	\$52.16	\$52.71	-1.05%	-0.43%	0.00%	0.95%	-2.00%	-0.20
3/17/2021	\$62.52	\$52.16	18.12%	0.36%	0.63%	1.34%	16.78%	1.72 *
3/18/2021	\$56.25	\$62.52	-10.57%	-1.81%	-3.26%	-1.88%	-8.69%	-0.89
3/19/2021	\$57.77	\$56.25	2.67%	0.18%	1.73%	2.51%	0.16%	0.02
3/22/2021	\$55.81	\$57.77	-3.45%	0.48%	1.34%	2.10%	-5.55%	-0.57
3/23/2021	\$52.39	\$55.81	-6.32%	-1.21%	-4.02%	-2.58%	-3.75%	-0.38
3/24/2021	\$48.81	\$52.39	-7.08%	-0.91%	-2.96%	-1.67%	-5.40%	-0.55
3/25/2021	\$49.71	\$48.81	1.83%	0.65%	1.11%	1.86%	-0.03%	0.00
3/26/2021	\$46.57	\$49.71	-6.52%	1.52%	0.27%	1.28%	-7.80%	-0.80
3/29/2021	\$44.48	\$46.57	-4.59%	-0.53%	-1.39%	-0.39%	-4.20%	-0.43
3/30/2021	\$43.96	\$44.48	-1.18%	0.00%	-0.36%	0.48%	-1.66%	-0.17
3/31/2021	\$44.95	\$43.96	2.23%	0.56%	2.51%	3.19%	-0.97%	-0.10
4/1/2021	\$46.87	\$44.95	4.18%	1.27%	0.83%	1.75%	2.43%	0.25
4/5/2021	\$44.83	\$46.87	-4.45%	1.14%	0.45%	1.45%	-5.90%	-0.60
4/6/2021	\$42.82	\$44.83	-4.59%	0.03%	-0.58%	0.23%	-4.81%	-0.49
4/7/2021	\$41.46	\$42.82	-3.23%	-0.15%	-1.78%	-0.87%	-2.36%	-0.24
4/8/2021	\$42.10	\$41.46	1.53%	0.59%	0.32%	1.16%	0.37%	0.04
4/9/2021	\$41.57	\$42.10	-1.27%	0.55%	-0.38%	0.57%	-1.83%	-0.19
4/12/2021	\$35.96	\$41.57	-14.50%	-0.07%	-1.44%	-0.56%	-13.94%	-1.43
4/13/2021	\$36.03	\$35.96	0.19%	0.40%	1.75%	2.34%	-2.14%	-0.22
4/14/2021	\$35.67	\$36.03	-1.00%	-0.29%	1.51%	1.71%	-2.71%	-0.28
4/15/2021	\$35.09	\$35.67	-1.64%	1.00%	1.26%	2.02%	-3.66%	-0.38
4/16/2021	\$34.85	\$35.09	-0.69%	0.26%	0.05%	0.71%	-1.40%	-0.14
4/19/2021	\$33.99	\$34.85	-2.50%	-0.70%	-1.09%	-0.63%	-1.87%	-0.19
4/20/2021	\$32.15	\$33.99	-5.57%	-0.91%	0.02%	0.18%	-5.75%	-0.59
4/21/2021	\$34.87	\$32.15	8.12%	1.12%	2.00%	2.76%	5.36%	0.55
4/22/2021	\$36.08	\$34.87	3.41%	-0.73%	-0.16%	0.13%	3.29%	0.34
4/23/2021	\$39.59	\$36.08	9.28%	1.20%	0.46%	1.43%	7.85%	0.81
4/26/2021	\$41.81	\$39.59	5.46%	0.44%	2.02%	2.46%	2.99%	0.31
4/27/2021	\$44.34	\$41.81	5.88%	-0.02%	-0.43%	0.10%	5.77%	0.60
4/28/2021	\$47.10	\$44.34	6.04%	0.01%	-0.72%	-0.13%	6.17%	0.64
4/29/2021	\$47.57	\$47.10	0.99%	0.35%	-1.12%	-0.35%	1.34%	0.14
4/30/2021	\$46.80	\$47.57	-1.63%	-0.80%	-0.03%	0.25%	-1.88%	-0.20

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
5/3/2021	\$42.99	\$46.80	-8.49%	0.20%	-0.03%	0.59%	-9.09%	-0.95
5/4/2021	\$41.15	\$42.99	-4.37%	-0.85%	-3.10%	-2.71%	-1.66%	-0.17
5/5/2021	\$42.02	\$41.15	2.09%	-0.01%	-0.80%	-0.27%	2.36%	0.25
5/6/2021	\$41.79	\$42.02	-0.55%	0.48%	-0.36%	0.34%	-0.89%	-0.09
5/7/2021	\$41.43	\$41.79	-0.87%	0.86%	0.90%	1.66%	-2.53%	-0.26
5/10/2021	\$38.62	\$41.43	-7.02%	-1.24%	-1.85%	-1.67%	-5.36%	-0.56
5/11/2021	\$39.23	\$38.62	1.57%	-0.66%	0.53%	0.81%	0.76%	0.08
5/12/2021	\$37.49	\$39.23	-4.54%	-2.28%	-0.93%	-1.08%	-3.46%	-0.36
5/13/2021	\$37.78	\$37.49	0.77%	0.97%	0.01%	0.72%	0.05%	0.01
5/14/2021	\$40.92	\$37.78	7.98%	1.74%	2.21%	3.03%	4.96%	0.52
5/17/2021	\$43.88	\$40.92	6.98%	-0.14%	0.39%	0.80%	6.18%	0.65
5/18/2021	\$46.72	\$43.88	6.27%	-0.60%	0.27%	0.60%	5.67%	0.59
5/19/2021	\$47.96	\$46.72	2.62%	-0.38%	-1.04%	-0.66%	3.27%	0.34
5/20/2021	\$49.39	\$47.96	2.94%	1.11%	2.26%	2.99%	-0.05%	-0.01
5/21/2021	\$50.02	\$49.39	1.27%	-0.03%	-0.69%	-0.18%	1.45%	0.15
5/24/2021	\$48.28	\$50.02	-3.54%	0.93%	-0.57%	0.09%	-3.63%	-0.38
5/25/2021	\$47.77	\$48.28	-1.06%	-0.27%	-0.62%	-0.15%	-0.91%	-0.10
5/26/2021	\$50.90	\$47.77	6.35%	0.45%	0.62%	1.23%	5.12%	0.54
5/27/2021	\$55.60	\$50.90	8.83%	0.29%	0.42%	1.04%	7.79%	0.82
5/28/2021	\$53.92	\$55.60	-3.07%	0.10%	0.43%	1.08%	-4.15%	-0.43
6/1/2021	\$57.06	\$53.92	5.66%	0.17%	-0.67%	-0.14%	5.80%	0.61
6/2/2021	\$60.70	\$57.06	6.18%	0.17%	0.32%	0.98%	5.21%	0.54
6/3/2021	\$62.06	\$60.70	2.22%	-0.52%	-0.11%	0.48%	1.74%	0.18
6/4/2021	\$64.16	\$62.06	3.33%	0.84%	1.23%	2.09%	1.24%	0.13
6/7/2021	\$67.59	\$64.16	5.21%	0.16%	3.56%	4.45%	0.76%	0.08
6/8/2021	\$68.96	\$67.59	2.01%	0.18%	-0.09%	0.72%	1.28%	0.14
6/9/2021	\$66.38	\$68.96	-3.81%	-0.29%	1.40%	2.16%	-5.98%	-0.64
6/10/2021	\$66.35	\$66.38	-0.05%	0.40%	1.74%	2.51%	-2.55%	-0.27
6/11/2021	\$77.00	\$66.35	14.89%	0.31%	-0.74%	0.11%	14.77%	1.57
6/14/2021	\$75.79	\$77.00	-1.58%	0.13%	-0.08%	0.78%	-2.36%	-0.25
6/15/2021	\$72.10	\$75.79	-4.99%	-0.30%	-1.63%	-0.72%	-4.27%	-0.45
6/16/2021	\$80.27	\$72.10	10.73%	-0.47%	-0.76%	-0.02%	10.76%	1.14
6/17/2021	\$78.60	\$80.27	-2.10%	-0.14%	0.67%	1.41%	-3.51%	-0.37
6/18/2021	\$79.65	\$78.60	1.33%	-1.26%	-0.31%	0.25%	1.07%	0.11
6/21/2021	\$89.72	\$79.65	11.91%	1.35%	0.82%	1.93%	9.98%	1.05
6/22/2021	\$77.63	\$89.72	-14.47%	0.49%	0.20%	1.24%	-15.71%	-1.65 *
6/23/2021	\$77.56	\$77.63	-0.09%	-0.01%	-0.35%	0.58%	-0.67%	-0.07
6/24/2021	\$81.46	\$77.56	4.91%	0.65%	1.26%	2.25%	2.66%	0.28
6/25/2021	\$78.41	\$81.46	-3.82%	0.32%	0.79%	1.69%	-5.51%	-0.58
6/28/2021	\$85.48	\$78.41	8.63%	0.11%	0.19%	1.06%	7.58%	0.80
6/29/2021	\$82.97	\$85.48	-2.98%	0.00%	-0.02%	0.77%	-3.75%	-0.40
6/30/2021	\$85.44	\$82.97	2.93%	0.04%	0.35%	1.13%	1.80%	0.19
7/1/2021	\$88.77	\$85.44	3.82%	0.42%	1.16%	2.15%	1.68%	0.18
7/2/2021	\$90.05	\$88.77	1.43%	0.50%	-0.45%	0.83%	0.60%	0.06
7/6/2021	\$92.80	\$90.05	3.01%	-0.30%	-1.50%	-0.67%	3.68%	0.39
7/7/2021	\$96.76	\$92.80	4.18%	0.11%	-1.32%	-0.17%	4.35%	0.46
7/8/2021	\$106.00	\$96.76	9.12%	-0.90%	0.49%	0.54%	8.58%	0.91
7/9/2021	\$95.34	\$106.00	-10.60%	1.28%	0.84%	2.63%	-13.22%	-1.40
7/12/2021	\$99.32	\$95.34	4.09%	0.22%	-0.44%	0.66%	3.43%	0.36
7/13/2021	\$103.80	\$99.32	4.41%	-0.60%	-1.09%	-0.47%	4.88%	0.52
7/14/2021	\$97.00	\$103.80	-6.78%	-0.24%	-1.26%	-0.45%	-6.32%	-0.67
7/15/2021	\$82.43	\$97.00	-16.28%	-0.39%	-0.01%	0.61%	-16.89%	-1.79 *
7/16/2021	\$80.09	\$82.43	-2.88%	-0.76%	1.07%	1.30%	-4.18%	-0.44

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
7/19/2021	\$82.26	\$80.09	2.67%	-1.47%	0.77%	0.40%	2.28%	0.24
7/20/2021	\$90.83	\$82.26	9.91%	1.68%	1.32%	3.31%	6.60%	0.70
7/21/2021	\$117.60	\$90.83	25.83%	0.96%	0.60%	2.20%	23.63%	2.50 **
7/22/2021	\$126.61	\$117.60	7.38%	0.03%	-0.13%	0.84%	6.54%	0.68
7/23/2021	\$123.38	\$126.61	-2.58%	0.89%	0.79%	2.53%	-5.12%	-0.53
7/26/2021	\$119.99	\$123.38	-2.79%	0.16%	-2.03%	-0.96%	-1.82%	-0.19
7/27/2021	\$127.50	\$119.99	6.07%	-0.60%	-0.93%	-0.55%	6.62%	0.69
7/28/2021	\$135.30	\$127.50	5.94%	0.30%	2.92%	4.47%	1.47%	0.15
7/29/2021	\$103.35	\$135.30	-26.94%	0.45%	-0.84%	0.38%	-27.32%	-2.85 ***
7/30/2021	\$69.53	\$103.35	-39.64%	-0.56%	-0.14%	0.41%	-40.04%	-4.17 ***
8/2/2021	\$79.98	\$69.53	14.00%	-0.14%	-0.01%	0.70%	13.30%	1.34
8/3/2021	\$84.86	\$79.98	5.92%	0.68%	2.17%	3.84%	2.09%	0.21
8/4/2021	\$88.26	\$84.86	3.93%	-0.40%	1.37%	2.06%	1.87%	0.19
8/5/2021	\$101.59	\$88.26	14.07%	0.71%	1.82%	3.58%	10.48%	1.05
8/6/2021	\$96.41	\$101.59	-5.23%	0.08%	-1.51%	-0.67%	-4.57%	-0.46
8/9/2021	\$104.99	\$96.41	8.53%	-0.04%	2.56%	3.90%	4.62%	0.46
8/10/2021	\$108.62	\$104.99	3.40%	0.07%	-1.64%	-0.88%	4.28%	0.43
8/11/2021	\$108.97	\$108.62	0.32%	0.24%	-3.04%	-2.37%	2.69%	0.27
8/12/2021	\$120.30	\$108.97	9.89%	0.20%	0.85%	2.20%	7.69%	0.77
8/13/2021	\$122.57	\$120.30	1.87%	0.03%	-0.06%	1.03%	0.84%	0.08
8/16/2021	\$116.67	\$122.57	-4.93%	-0.08%	-1.38%	-0.59%	-4.35%	-0.43
8/17/2021	\$104.62	\$116.67	-10.90%	-0.79%	1.99%	2.78%	-13.68%	-1.37
8/18/2021	\$106.17	\$104.62	1.47%	-0.89%	-1.37%	-1.38%	2.85%	0.28
8/19/2021	\$101.23	\$106.17	-4.76%	-0.23%	-2.57%	-1.91%	-2.86%	-0.28
8/20/2021	\$104.06	\$101.23	2.76%	0.86%	1.64%	3.66%	-0.90%	-0.09
8/23/2021	\$115.61	\$104.06	10.53%	1.05%	3.09%	5.39%	5.13%	0.51
8/24/2021	\$117.83	\$115.61	1.90%	0.42%	-0.34%	1.14%	0.76%	0.08
8/25/2021	\$80.86	\$117.83	-37.65%	0.26%	0.47%	1.86%	-39.52%	-3.94 ***
8/26/2021	\$70.85	\$80.86	-13.22%	-0.65%	-0.65%	-0.44%	-12.78%	-1.23
8/27/2021	\$58.34	\$70.85	-19.43%	1.09%	0.33%	2.43%	-21.86%	-2.10 **
8/30/2021	\$53.26	\$58.34	-9.11%	0.30%	-0.23%	0.86%	-9.97%	-0.95
8/31/2021	\$56.85	\$53.26	6.52%	-0.11%	0.62%	1.32%	5.20%	0.50
9/1/2021	\$51.96	\$56.85	-8.99%	0.20%	1.02%	2.11%	-11.10%	-1.06
9/2/2021	\$54.35	\$51.96	4.50%	0.41%	1.06%	2.26%	2.23%	0.21
9/3/2021	\$50.20	\$54.35	-7.94%	-0.01%	-0.19%	0.55%	-8.49%	-0.81
9/7/2021	\$47.84	\$50.20	-4.82%	-0.42%	-0.27%	-0.03%	-4.78%	-0.45
9/8/2021	\$46.49	\$47.84	-2.86%	-0.35%	-1.06%	-0.85%	-2.02%	-0.19
9/9/2021	\$49.72	\$46.49	6.72%	-0.29%	0.31%	0.62%	6.10%	0.58
9/10/2021	\$50.64	\$49.72	1.83%	-0.73%	-0.52%	-0.75%	2.58%	0.25
9/13/2021	\$47.12	\$50.64	-7.20%	0.20%	-1.22%	-0.44%	-6.76%	-0.64
9/14/2021	\$41.79	\$47.12	-12.00%	-0.62%	-0.27%	-0.36%	-11.65%	-1.11
9/15/2021	\$43.92	\$41.79	4.97%	0.85%	0.95%	2.61%	2.36%	0.22
9/16/2021	\$43.95	\$43.92	0.07%	-0.09%	0.50%	1.11%	-1.04%	-0.10
9/17/2021	\$48.51	\$43.95	9.87%	-0.74%	0.59%	0.43%	9.44%	0.90
9/20/2021	\$48.26	\$48.51	-0.52%	-1.84%	-2.22%	-3.95%	3.43%	0.33
9/21/2021	\$52.86	\$48.26	9.10%	0.09%	1.00%	1.65%	7.45%	0.73
9/22/2021	\$52.31	\$52.86	-1.05%	0.99%	-0.13%	1.78%	-2.82%	-0.28
9/23/2021	\$60.12	\$52.31	13.92%	1.20%	1.40%	3.61%	10.31%	1.00
9/24/2021	\$61.94	\$60.12	2.98%	-0.01%	-1.89%	-1.47%	4.45%	0.43
9/27/2021	\$68.53	\$61.94	10.11%	-0.10%	-0.78%	-0.35%	10.46%	1.02
9/28/2021	\$64.99	\$68.53	-5.30%	-2.10%	-3.01%	-5.12%	-0.18%	-0.02
9/29/2021	\$62.14	\$64.99	-4.48%	-0.01%	-0.43%	0.20%	-4.68%	-0.46
9/30/2021	\$62.08	\$62.14	-0.10%	-0.95%	0.20%	-0.54%	0.44%	0.04



**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
10/1/2021	\$60.52	\$62.08	-2.55%	1.06%	-1.76%	0.37%	-2.91%	-0.28
10/4/2021	\$54.31	\$60.52	-10.83%	-1.30%	-2.00%	-3.16%	-7.66%	-0.75
10/5/2021	\$57.17	\$54.31	5.13%	0.95%	0.16%	2.07%	3.06%	0.30
10/6/2021	\$52.51	\$57.17	-8.50%	0.28%	-1.17%	-0.17%	-8.34%	-0.81
10/7/2021	\$53.62	\$52.51	2.09%	0.99%	1.25%	3.21%	-1.12%	-0.11
10/8/2021	\$51.49	\$53.62	-4.05%	-0.25%	-0.53%	-0.33%	-3.72%	-0.36
10/11/2021	\$51.08	\$51.49	-0.80%	-0.64%	-0.03%	-0.37%	-0.43%	-0.04
10/12/2021	\$51.88	\$51.08	1.55%	0.02%	0.10%	0.69%	0.86%	0.08
10/13/2021	\$54.99	\$51.88	5.82%	0.48%	0.42%	1.72%	4.11%	0.40
10/14/2021	\$53.37	\$54.99	-2.99%	1.58%	1.31%	4.27%	-7.26%	-0.71
10/15/2021	\$49.69	\$53.37	-7.14%	0.57%	-0.68%	0.69%	-7.83%	-0.76
10/18/2021	\$50.16	\$49.69	0.94%	0.33%	-1.29%	-0.38%	1.32%	0.13
10/19/2021	\$47.50	\$50.16	-5.45%	0.68%	1.11%	2.67%	-8.12%	-0.79
10/20/2021	\$46.39	\$47.50	-2.36%	0.39%	-0.07%	0.99%	-3.36%	-0.33
10/21/2021	\$46.56	\$46.39	0.37%	0.29%	0.72%	1.70%	-1.34%	-0.13
10/22/2021	\$45.71	\$46.56	-1.84%	-0.17%	-0.45%	-0.10%	-1.74%	-0.17
10/25/2021	\$47.81	\$45.71	4.49%	0.55%	1.10%	2.43%	2.06%	0.20
10/26/2021	\$47.17	\$47.81	-1.35%	-0.01%	-0.02%	0.56%	-1.90%	-0.18
10/27/2021	\$44.61	\$47.17	-5.58%	-0.76%	-1.65%	-2.12%	-3.46%	-0.34
10/28/2021	\$44.46	\$44.61	-0.34%	1.12%	1.90%	4.02%	-4.36%	-0.42
10/29/2021	\$43.13	\$44.46	-3.04%	0.10%	-0.34%	0.31%	-3.35%	-0.32
11/1/2021	\$46.11	\$43.13	6.68%	0.57%	1.59%	2.93%	3.75%	0.36
11/2/2021	\$58.07	\$46.11	23.06%	0.20%	0.78%	1.63%	21.44%	2.08 **
11/3/2021	\$56.66	\$58.07	-2.46%	0.73%	1.71%	3.42%	-5.88%	-0.56
11/4/2021	\$84.40	\$56.66	39.85%	0.29%	-1.78%	-0.95%	40.80%	3.92 ***
11/5/2021	\$90.91	\$84.40	7.43%	0.40%	-2.69%	-0.74%	8.17%	0.76
11/8/2021	\$89.49	\$90.91	-1.57%	0.20%	0.07%	1.24%	-2.82%	-0.26
11/9/2021	\$78.41	\$89.49	-13.22%	-0.29%	-1.08%	-0.43%	-12.79%	-1.20
11/10/2021	\$69.40	\$78.41	-12.21%	-1.05%	-1.33%	-2.15%	-10.05%	-0.94
11/11/2021	\$72.43	\$69.40	4.27%	0.24%	-0.21%	1.08%	3.19%	0.30
11/12/2021	\$68.80	\$72.43	-5.14%	0.71%	0.12%	2.17%	-7.32%	-0.68
11/15/2021	\$60.51	\$68.80	-12.84%	-0.03%	-0.45%	0.34%	-13.18%	-1.23
11/16/2021	\$61.69	\$60.51	1.93%	0.40%	0.08%	1.46%	0.47%	0.04
11/17/2021	\$47.07	\$61.69	-27.05%	-0.45%	-0.09%	-0.27%	-26.78%	-2.49 **
11/18/2021	\$48.44	\$47.07	2.87%	0.03%	-0.34%	0.40%	2.47%	0.23
11/19/2021	\$53.19	\$48.44	9.35%	-0.29%	0.52%	0.27%	9.08%	0.84
11/22/2021	\$52.77	\$53.19	-0.79%	-0.62%	-0.68%	-1.07%	0.28%	0.03
11/23/2021	\$52.57	\$52.77	-0.38%	-0.03%	-0.37%	0.35%	-0.72%	-0.07
11/24/2021	\$58.05	\$52.57	9.92%	0.32%	0.22%	1.45%	8.46%	0.78
11/26/2021	\$55.96	\$58.05	-3.67%	-2.26%	0.41%	-3.83%	0.16%	0.01
11/29/2021	\$54.62	\$55.96	-2.42%	1.00%	0.46%	3.06%	-5.49%	-0.50
11/30/2021	\$53.49	\$54.62	-2.09%	-1.93%	-0.89%	-3.86%	1.77%	0.16
12/1/2021	\$48.79	\$53.49	-9.20%	-1.52%	-2.26%	-3.83%	-5.37%	-0.49
12/2/2021	\$48.35	\$48.79	-0.91%	1.53%	0.42%	4.15%	-5.05%	-0.46
12/3/2021	\$45.85	\$48.35	-5.31%	-1.14%	-2.35%	-3.21%	-2.10%	-0.19
12/6/2021	\$43.96	\$45.85	-4.21%	1.17%	-1.56%	2.03%	-6.24%	-0.57
12/7/2021	\$47.65	\$43.96	8.06%	2.13%	3.81%	7.55%	0.51%	0.05
12/8/2021	\$49.98	\$47.65	4.77%	0.43%	1.20%	2.36%	2.42%	0.22
12/9/2021	\$45.86	\$49.98	-8.60%	-1.08%	-2.23%	-3.08%	-5.52%	-0.51
12/10/2021	\$44.10	\$45.86	-3.91%	0.61%	-1.27%	0.89%	-4.81%	-0.44
12/13/2021	\$44.85	\$44.10	1.69%	-0.99%	1.30%	-0.26%	1.95%	0.18
12/14/2021	\$46.94	\$44.85	4.55%	-0.77%	-0.16%	-1.00%	5.56%	0.51
12/15/2021	\$45.78	\$46.94	-2.50%	1.49%	2.22%	5.27%	-7.77%	-0.71

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
12/16/2021	\$43.59	\$45.78	-4.90%	-1.01%	-1.06%	-2.09%	-2.81%	-0.26
12/17/2021	\$43.27	\$43.59	-0.74%	-0.63%	2.58%	1.46%	-2.20%	-0.20
12/20/2021	\$36.77	\$43.27	-16.28%	-1.24%	-0.90%	-2.44%	-13.84%	-1.27
12/21/2021	\$43.67	\$36.77	17.20%	1.97%	0.66%	4.95%	12.25%	1.12
12/22/2021	\$43.58	\$43.67	-0.21%	0.95%	-0.37%	2.37%	-2.57%	-0.23
12/23/2021	\$44.19	\$43.58	1.39%	0.68%	0.89%	2.70%	-1.31%	-0.12
12/27/2021	\$46.84	\$44.19	5.82%	1.20%	-1.46%	2.05%	3.77%	0.34
12/28/2021	\$44.50	\$46.84	-5.12%	-0.24%	-0.74%	-0.43%	-4.70%	-0.43
12/29/2021	\$42.99	\$44.50	-3.45%	0.06%	0.41%	1.01%	-4.46%	-0.41
12/30/2021	\$43.77	\$42.99	1.80%	-0.10%	0.51%	0.73%	1.07%	0.10
12/31/2021	\$43.70	\$43.77	-0.16%	-0.24%	-0.87%	-0.49%	0.33%	0.03
1/3/2022	\$47.94	\$43.70	9.26%	0.61%	0.70%	2.44%	6.82%	0.62
1/4/2022	\$48.19	\$47.94	0.52%	-0.24%	-2.49%	-1.50%	2.02%	0.18
1/5/2022	\$49.49	\$48.19	2.66%	2.66%	-2.21%	-6.82%	9.48%	0.87
1/6/2022	\$49.09	\$49.49	-0.81%	0.02%	-0.04%	0.68%	-1.49%	-0.14
1/7/2022	\$47.95	\$49.09	-2.35%	-0.42%	-0.94%	-0.78%	-1.57%	-0.14
1/10/2022	\$48.38	\$47.95	0.89%	-0.19%	1.04%	0.91%	-0.01%	0.00
1/11/2022	\$49.64	\$48.38	2.57%	1.08%	1.15%	3.72%	-1.15%	-0.10
1/12/2022	\$48.49	\$49.64	-2.34%	0.18%	-1.53%	0.17%	-2.51%	-0.23
1/13/2022	\$45.69	\$48.49	-5.95%	-1.45%	-2.29%	-3.96%	-1.99%	-0.18
1/14/2022	\$45.88	\$45.69	0.42%	0.02%	0.92%	1.31%	-0.89%	-0.08
1/18/2022	\$41.48	\$45.88	-10.08%	-1.95%	-3.93%	-6.29%	-3.80%	-0.35
1/19/2022	\$41.17	\$41.48	-0.75%	-0.94%	-1.05%	-2.17%	1.42%	0.13
1/20/2022	\$37.41	\$41.17	-9.58%	-1.11%	-1.14%	-2.58%	-7.00%	-0.66
1/21/2022	\$36.33	\$37.41	-2.93%	-2.01%	-1.59%	-4.94%	2.01%	0.19
1/24/2022	\$39.54	\$36.33	8.47%	0.42%	0.84%	1.94%	6.52%	0.61
1/25/2022	\$40.02	\$39.54	1.21%	-1.25%	-1.42%	-3.17%	4.38%	0.41
1/26/2022	\$39.45	\$40.02	-1.43%	-0.36%	-1.17%	-1.18%	-0.26%	-0.02
1/27/2022	\$37.66	\$39.45	-4.64%	-0.81%	-1.82%	-2.75%	-1.89%	-0.18
1/28/2022	\$39.75	\$37.66	5.40%	2.22%	3.24%	7.71%	-2.31%	-0.22
1/31/2022	\$44.25	\$39.75	10.72%	2.22%	2.82%	7.44%	3.28%	0.31
2/1/2022	\$46.01	\$44.25	3.90%	0.85%	1.50%	3.24%	0.66%	0.06
2/2/2022	\$45.73	\$46.01	-0.61%	0.47%	-1.24%	-0.06%	-0.55%	-0.06
2/3/2022	\$45.08	\$45.73	-1.43%	-2.36%	-2.18%	-5.70%	4.27%	0.51
2/4/2022	\$47.81	\$45.08	5.88%	0.72%	0.44%	1.54%	4.34%	0.54
2/7/2022	\$47.04	\$47.81	-1.62%	-0.18%	1.01%	0.75%	-2.38%	-0.31
2/8/2022	\$47.12	\$47.04	0.17%	0.91%	0.09%	1.78%	-1.61%	-0.21
2/9/2022	\$49.22	\$47.12	4.36%	1.61%	2.49%	5.22%	-0.86%	-0.11
2/10/2022	\$53.05	\$49.22	7.49%	-1.64%	-2.43%	-4.96%	12.45%	1.63
2/11/2022	\$51.01	\$53.05	-3.92%	-1.78%	-0.96%	-3.63%	-0.29%	-0.04
2/14/2022	\$48.70	\$51.01	-4.63%	-0.41%	-1.81%	-2.09%	-2.55%	-0.33
2/15/2022	\$49.22	\$48.70	1.06%	1.75%	2.62%	5.47%	-4.41%	-0.58
2/16/2022	\$48.76	\$49.22	-0.94%	0.03%	-0.32%	-0.04%	-0.90%	-0.12
2/17/2022	\$44.97	\$48.76	-8.09%	-2.15%	-2.74%	-5.80%	-2.29%	-0.30
2/18/2022	\$45.29	\$44.97	0.71%	-0.83%	-1.21%	-2.32%	3.03%	0.40
2/22/2022	\$41.51	\$45.29	-8.72%	-1.13%	-0.48%	-2.15%	-6.57%	-0.86
2/23/2022	\$38.33	\$41.51	-7.97%	-1.82%	-2.09%	-4.79%	-3.18%	-0.41
2/24/2022	\$42.01	\$38.33	9.17%	1.60%	2.13%	4.72%	4.45%	0.58
2/25/2022	\$42.51	\$42.01	1.18%	2.19%	1.51%	5.38%	-4.20%	-0.55
2/28/2022	\$42.51	\$42.51	0.00%	-0.04%	-0.37%	-0.26%	0.26%	0.03
3/1/2022	\$40.17	\$42.51	-5.66%	-1.51%	-0.56%	-3.06%	-2.60%	-0.34
3/2/2022	\$40.62	\$40.17	1.11%	1.76%	0.78%	3.97%	-2.85%	-0.37
3/3/2022	\$37.11	\$40.62	-9.04%	-0.81%	-1.66%	-2.82%	-6.22%	-0.81

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
3/4/2022	\$37.31	\$37.11	0.54%	-1.02%	-1.33%	-2.91%	3.44%	0.45
3/7/2022	\$34.89	\$37.31	-6.71%	-2.96%	-1.08%	-6.15%	-0.56%	-0.07
3/8/2022	\$35.55	\$34.89	1.87%	-0.44%	0.30%	-0.40%	2.28%	0.30
3/9/2022	\$37.46	\$35.55	5.23%	2.59%	3.12%	7.68%	-2.45%	-0.32
3/10/2022	\$37.65	\$37.46	0.51%	-0.42%	-0.94%	-1.50%	2.00%	0.26
3/11/2022	\$35.91	\$37.65	-4.73%	-1.38%	-1.77%	-3.97%	-0.76%	-0.10
3/14/2022	\$32.60	\$35.91	-9.67%	-1.06%	-1.08%	-2.76%	-6.91%	-0.90
3/15/2022	\$34.85	\$32.60	6.67%	1.89%	1.31%	4.78%	1.90%	0.25
3/16/2022	\$37.19	\$34.85	6.50%	2.51%	3.62%	8.12%	-1.62%	-0.21
3/17/2022	\$39.13	\$37.19	5.08%	1.38%	2.18%	4.54%	0.54%	0.07
3/18/2022	\$39.08	\$39.13	-0.13%	1.22%	1.53%	3.63%	-3.76%	-0.50
3/21/2022	\$38.22	\$39.08	-2.23%	-0.17%	-1.37%	-1.47%	-0.76%	-0.10
3/22/2022	\$38.94	\$38.22	1.87%	1.17%	2.09%	4.04%	-2.17%	-0.29
3/23/2022	\$39.82	\$38.94	2.23%	-1.19%	-2.13%	-3.96%	6.19%	0.82
3/24/2022	\$40.83	\$39.82	2.50%	1.30%	1.36%	3.55%	-1.05%	-0.14
3/25/2022	\$40.17	\$40.83	-1.63%	0.31%	-1.63%	-0.75%	-0.88%	-0.12
3/28/2022	\$40.14	\$40.17	-0.07%	0.61%	0.49%	1.66%	-1.74%	-0.23
3/29/2022	\$39.98	\$40.14	-0.40%	1.46%	2.66%	4.99%	-5.39%	-0.72
3/30/2022	\$38.54	\$39.98	-3.67%	-0.77%	-1.30%	-2.33%	-1.34%	-0.18
3/31/2022	\$37.14	\$38.54	-3.70%	-1.46%	-0.34%	-2.85%	-0.85%	-0.11
4/1/2022	\$37.95	\$37.14	2.16%	0.45%	2.28%	2.73%	-0.58%	-0.08
4/4/2022	\$38.47	\$37.95	1.36%	0.83%	1.23%	2.65%	-1.29%	-0.17
4/5/2022	\$31.23	\$38.47	-20.85%	-1.49%	-1.67%	-3.97%	-16.88%	-2.24 **
4/6/2022	\$29.20	\$31.23	-6.72%	-1.13%	0.26%	-1.99%	-4.73%	-0.62
4/7/2022	\$28.05	\$29.20	-4.02%	0.25%	0.83%	1.18%	-5.20%	-0.68
4/8/2022	\$27.09	\$28.05	-3.48%	-0.32%	-0.29%	-0.84%	-2.64%	-0.35
4/11/2022	\$26.05	\$27.09	-3.91%	-1.45%	-2.17%	-4.45%	0.53%	0.07
4/12/2022	\$26.17	\$26.05	0.46%	-0.27%	-0.53%	-0.85%	1.31%	0.17
4/13/2022	\$26.94	\$26.17	2.90%	1.33%	2.64%	4.70%	-1.80%	-0.24
4/14/2022	\$26.25	\$26.94	-2.59%	-1.18%	-1.13%	-3.14%	0.55%	0.07
4/18/2022	\$25.31	\$26.25	-3.65%	-0.21%	-2.90%	-2.33%	-1.32%	-0.17
4/19/2022	\$22.46	\$25.31	-11.95%	1.62%	0.80%	4.07%	-16.02%	-2.12 **
4/20/2022	\$20.39	\$22.46	-9.67%	-0.09%	0.26%	0.10%	-9.77%	-1.28
4/21/2022	\$18.51	\$20.39	-9.67%	-1.70%	-2.36%	-5.01%	-4.67%	-0.61
4/22/2022	\$19.01	\$18.51	2.67%	-2.67%	-2.27%	-7.00%	9.67%	1.27
4/25/2022	\$20.61	\$19.01	8.08%	0.53%	1.41%	2.04%	6.04%	0.79
4/26/2022	\$21.55	\$20.61	4.46%	-2.87%	-3.70%	-8.07%	12.53%	1.64
4/27/2022	\$21.11	\$21.55	-2.06%	0.13%	-0.36%	-0.05%	-2.02%	-0.26
4/28/2022	\$20.90	\$21.11	-1.00%	2.27%	-0.27%	3.86%	-4.86%	-0.64
4/29/2022	\$20.87	\$20.90	-0.14%	-3.41%	-2.27%	-7.83%	7.69%	1.00
5/2/2022	\$20.80	\$20.87	-0.34%	0.59%	1.39%	2.11%	-2.44%	-0.32
5/3/2022	\$21.08	\$20.80	1.34%	0.51%	0.47%	1.21%	0.12%	0.02
5/4/2022	\$21.11	\$21.08	0.14%	2.76%	1.70%	5.88%	-5.74%	-0.75
5/5/2022	\$20.75	\$21.11	-1.72%	-3.70%	-4.12%	-9.24%	7.52%	0.98
5/6/2022	\$20.05	\$20.75	-3.43%	-0.84%	-3.91%	-4.67%	1.23%	0.16
5/9/2022	\$18.93	\$20.05	-5.75%	-3.61%	-5.05%	-9.87%	4.12%	0.54
5/10/2022	\$19.78	\$18.93	4.39%	0.13%	2.63%	2.32%	2.07%	0.27
5/11/2022	\$17.22	\$19.78	-13.86%	-1.73%	-3.68%	-5.59%	-8.28%	-1.08
5/12/2022	\$17.63	\$17.22	2.35%	0.15%	2.89%	2.65%	-0.30%	-0.04
5/13/2022	\$19.24	\$17.63	8.74%	2.66%	3.31%	6.84%	1.89%	0.25
5/16/2022	\$20.82	\$19.24	7.89%	-0.47%	0.57%	-0.27%	8.16%	1.06
5/17/2022	\$22.76	\$20.82	8.91%	2.03%	2.97%	5.58%	3.33%	0.43
5/18/2022	\$22.28	\$22.76	-2.13%	-3.84%	-2.92%	-8.49%	6.36%	0.83

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
5/19/2022	\$23.98	\$22.28	7.35%	-0.21%	1.24%	0.74%	6.61%	0.86
5/20/2022	\$25.15	\$23.98	4.76%	0.00%	0.80%	0.71%	4.05%	0.53
5/23/2022	\$27.23	\$25.15	7.95%	1.63%	0.59%	2.82%	5.12%	0.67
5/24/2022	\$25.06	\$27.23	-8.30%	-1.07%	-1.59%	-2.95%	-5.35%	-0.69
5/25/2022	\$26.64	\$25.06	6.11%	1.11%	0.51%	2.13%	3.99%	0.52
5/26/2022	\$25.50	\$26.64	-4.37%	1.96%	0.59%	3.48%	-7.85%	-1.02
5/27/2022	\$26.66	\$25.50	4.45%	2.42%	2.72%	5.87%	-1.42%	-0.18
5/31/2022	\$30.60	\$26.66	13.78%	-0.70%	-2.29%	-3.12%	16.91%	2.19 **
6/1/2022	\$26.82	\$30.60	-13.19%	-0.70%	-1.04%	-1.89%	-11.30%	-1.45
6/2/2022	\$27.56	\$26.82	2.72%	2.01%	0.34%	3.12%	-0.40%	-0.05
6/3/2022	\$29.06	\$27.56	5.30%	-1.55%	0.46%	-1.94%	7.24%	0.93
6/6/2022	\$27.93	\$29.06	-3.97%	0.29%	-1.65%	-1.13%	-2.83%	-0.36
6/7/2022	\$28.88	\$27.93	3.34%	0.98%	2.70%	3.68%	-0.33%	-0.04
6/8/2022	\$28.20	\$28.88	-2.38%	-1.05%	0.40%	-1.16%	-1.22%	-0.16
6/9/2022	\$25.87	\$28.20	-8.62%	-2.39%	-3.78%	-6.75%	-1.87%	-0.24
6/10/2022	\$27.49	\$25.87	6.07%	-2.86%	-3.03%	-6.76%	12.84%	1.64
6/13/2022	\$22.67	\$27.49	-19.28%	-4.15%	-4.09%	-8.98%	-10.30%	-1.32
6/14/2022	\$24.45	\$22.67	7.56%	-0.35%	0.26%	-0.32%	7.88%	1.01
6/15/2022	\$26.80	\$24.45	9.18%	1.49%	2.32%	4.12%	5.06%	0.65
6/16/2022	\$26.43	\$26.80	-1.39%	-3.48%	-2.23%	-6.91%	5.52%	0.71
6/17/2022	\$26.92	\$26.43	1.84%	0.40%	3.90%	4.42%	-2.58%	-0.33
6/21/2022	\$26.61	\$26.92	-1.16%	2.23%	2.27%	4.99%	-6.15%	-0.79
6/22/2022	\$29.27	\$26.61	9.53%	-0.22%	1.39%	0.95%	8.57%	1.10
6/23/2022	\$30.80	\$29.27	5.10%	0.91%	3.86%	4.93%	0.17%	0.02
6/24/2022	\$30.44	\$30.80	-1.18%	2.94%	1.70%	5.04%	-6.21%	-0.80
6/27/2022	\$30.85	\$30.44	1.34%	-0.21%	-0.22%	-0.62%	1.96%	0.25
6/28/2022	\$29.47	\$30.85	-4.58%	-1.89%	-2.39%	-4.70%	0.12%	0.02
6/29/2022	\$29.75	\$29.47	0.95%	-0.27%	0.75%	0.34%	0.61%	0.08
6/30/2022	\$28.12	\$29.75	-5.63%	-0.90%	-0.79%	-1.96%	-3.68%	-0.47
7/1/2022	\$26.51	\$28.12	-5.90%	1.09%	2.15%	3.28%	-9.18%	-1.18
7/5/2022	\$26.49	\$26.51	-0.08%	0.20%	2.16%	2.18%	-2.26%	-0.29
7/6/2022	\$24.43	\$26.49	-8.10%	0.07%	0.24%	0.07%	-8.17%	-1.05
7/7/2022	\$24.91	\$24.43	1.95%	1.68%	2.38%	3.96%	-2.02%	-0.26
7/8/2022	\$24.28	\$24.91	-2.56%	-0.08%	0.50%	0.10%	-2.66%	-0.34
7/11/2022	\$23.34	\$24.28	-3.95%	-1.33%	-1.95%	-3.81%	-0.14%	-0.02
7/12/2022	\$23.23	\$23.34	-0.47%	-0.81%	-0.17%	-1.45%	0.98%	0.13
7/13/2022	\$23.40	\$23.23	0.73%	-0.34%	0.03%	-0.72%	1.45%	0.19
7/14/2022	\$23.27	\$23.40	-0.56%	-0.56%	-1.68%	-2.69%	2.13%	0.28
7/15/2022	\$23.91	\$23.27	2.71%	1.84%	1.80%	3.60%	-0.89%	-0.12
7/18/2022	\$23.57	\$23.91	-1.43%	-0.56%	-2.36%	-3.26%	1.83%	0.24
7/19/2022	\$24.36	\$23.57	3.30%	2.70%	2.79%	5.61%	-2.31%	-0.30
7/20/2022	\$24.21	\$24.36	-0.62%	0.78%	0.03%	0.66%	-1.27%	-0.17
7/21/2022	\$23.64	\$24.21	-2.38%	0.93%	0.18%	0.90%	-3.28%	-0.43
7/22/2022	\$22.93	\$23.64	-3.05%	-1.05%	-2.28%	-3.81%	0.76%	0.10
7/25/2022	\$21.69	\$22.93	-5.56%	0.20%	0.33%	0.08%	-5.64%	-0.76
7/26/2022	\$21.72	\$21.69	0.14%	-1.19%	0.06%	-1.64%	1.78%	0.24
7/27/2022	\$18.69	\$21.72	-15.02%	2.50%	1.03%	3.14%	-18.16%	-2.44 **
7/28/2022	\$16.84	\$18.69	-10.42%	1.24%	-0.58%	-0.15%	-10.28%	-1.37
7/29/2022	\$16.33	\$16.84	-3.08%	1.33%	-0.62%	-0.25%	-2.82%	-0.37
8/1/2022	\$17.95	\$16.33	9.46%	-0.22%	-1.72%	-2.72%	12.18%	1.62
8/2/2022	\$19.38	\$17.95	7.67%	-0.53%	0.66%	-0.04%	7.70%	1.08
8/3/2022	\$18.50	\$19.38	-4.65%	1.49%	3.87%	5.00%	-9.65%	-1.36
8/4/2022	\$17.16	\$18.50	-7.52%	-0.05%	2.35%	2.23%	-9.74%	-1.37

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
8/5/2022	\$17.50	\$17.16	1.96%	-0.04%	1.44%	1.00%	0.96%	0.13
8/8/2022	\$19.42	\$17.50	10.41%	0.12%	0.92%	0.48%	9.93%	1.40
8/9/2022	\$20.21	\$19.42	3.99%	-0.64%	-1.70%	-2.75%	6.73%	0.95
8/10/2022	\$19.82	\$20.21	-1.95%	2.24%	2.17%	3.44%	-5.39%	-0.76
8/11/2022	\$19.85	\$19.82	0.15%	-0.02%	-1.55%	-2.09%	2.25%	0.32
8/12/2022	\$20.42	\$19.85	2.83%	1.67%	1.18%	1.89%	0.94%	0.13
8/15/2022	\$20.19	\$20.42	-1.13%	0.28%	1.64%	1.26%	-2.40%	-0.34
8/16/2022	\$20.21	\$20.19	0.10%	0.19%	-1.35%	-1.79%	1.89%	0.27
8/17/2022	\$25.72	\$20.21	24.11%	-0.92%	-2.10%	-3.34%	27.45%	3.88 ***
8/18/2022	\$26.47	\$25.72	2.87%	0.27%	-1.20%	-1.40%	4.28%	0.59
8/19/2022	\$25.58	\$26.47	-3.42%	-1.47%	-0.78%	-2.24%	-1.18%	-0.16
8/22/2022	\$24.61	\$25.58	-3.87%	-2.05%	-1.57%	-3.42%	-0.45%	-0.06
8/23/2022	\$25.31	\$24.61	2.80%	-0.07%	0.05%	-0.43%	3.24%	0.45
8/24/2022	\$27.83	\$25.31	9.49%	0.39%	1.36%	1.06%	8.43%	1.17
8/25/2022	\$27.28	\$27.83	-2.00%	1.41%	0.14%	0.75%	-2.75%	-0.38
8/26/2022	\$29.39	\$27.28	7.45%	-3.24%	-3.41%	-5.90%	13.35%	1.95 *
8/29/2022	\$26.12	\$29.39	-11.80%	-0.65%	-0.65%	-1.19%	-10.60%	-1.55
8/30/2022	\$26.24	\$26.12	0.46%	-1.15%	-0.96%	-1.84%	2.30%	0.34
8/31/2022	\$25.73	\$26.24	-1.96%	-0.72%	0.21%	-0.42%	-1.54%	-0.23
9/1/2022	\$25.34	\$25.73	-1.53%	-0.11%	1.87%	1.45%	-2.98%	-0.44
9/2/2022	\$24.68	\$25.34	-2.64%	-0.86%	-1.61%	-2.19%	-0.45%	-0.07
9/6/2022	\$28.36	\$24.68	13.90%	-0.49%	-1.71%	-2.01%	15.91%	2.38 **
9/7/2022	\$29.32	\$28.36	3.33%	1.81%	2.89%	3.81%	-0.48%	-0.07
9/8/2022	\$29.61	\$29.32	0.98%	0.74%	3.19%	3.23%	-2.24%	-0.33
9/9/2022	\$32.80	\$29.61	10.23%	1.65%	0.93%	2.05%	8.18%	1.21
9/12/2022	\$33.38	\$32.80	1.75%	1.07%	0.20%	1.06%	0.69%	0.10
9/13/2022	\$30.87	\$33.38	-7.82%	-4.14%	-4.23%	-6.91%	-0.91%	-0.13
9/14/2022	\$32.92	\$30.87	6.43%	0.40%	0.90%	1.05%	5.38%	0.80
9/15/2022	\$31.58	\$32.92	-4.16%	-1.03%	0.26%	-0.62%	-3.54%	-0.53
9/16/2022	\$31.04	\$31.58	-1.72%	-0.96%	-0.98%	-1.55%	-0.17%	-0.03
9/19/2022	\$30.30	\$31.04	-2.41%	0.69%	-1.00%	-0.11%	-2.30%	-0.34
9/20/2022	\$38.91	\$30.30	25.01%	-1.23%	-0.73%	-1.68%	26.69%	4.00 ***
9/21/2022	\$37.64	\$38.91	-3.32%	-1.61%	-2.45%	-3.14%	-0.18%	-0.03
9/22/2022	\$51.06	\$37.64	30.49%	-1.15%	-0.52%	-1.31%	31.81%	4.63 ***
9/23/2022	\$41.87	\$51.06	-19.84%	-1.93%	-1.41%	-2.33%	-17.51%	-2.45 **
9/26/2022	\$45.19	\$41.87	7.63%	-1.15%	-1.67%	-2.00%	9.63%	1.35
9/27/2022	\$46.18	\$45.19	2.17%	-0.07%	1.50%	1.33%	0.84%	0.12
9/28/2022	\$43.84	\$46.18	-5.20%	2.14%	4.21%	5.01%	-10.21%	-1.43
9/29/2022	\$43.07	\$43.84	-1.77%	-2.12%	-1.79%	-2.66%	0.89%	0.12
9/30/2022	\$41.82	\$43.07	-2.95%	-1.24%	-0.23%	-0.87%	-2.07%	-0.29
10/3/2022	\$41.50	\$41.82	-0.77%	2.51%	1.43%	2.84%	-3.60%	-0.50
10/4/2022	\$41.72	\$41.50	0.53%	3.19%	2.93%	4.36%	-3.83%	-0.54
10/5/2022	\$40.97	\$41.72	-1.81%	-0.32%	0.01%	-0.09%	-1.73%	-0.24
10/6/2022	\$42.35	\$40.97	3.31%	-0.94%	-0.54%	-0.88%	4.20%	0.59
10/7/2022	\$39.93	\$42.35	-5.88%	-2.78%	-2.67%	-3.51%	-2.38%	-0.33
10/10/2022	\$36.32	\$39.93	-9.48%	-0.82%	-0.67%	-0.89%	-8.59%	-1.21
10/11/2022	\$35.64	\$36.32	-1.89%	-0.64%	0.69%	0.16%	-2.05%	-0.29
10/12/2022	\$35.86	\$35.64	0.62%	-0.29%	0.49%	0.23%	0.38%	0.05
10/13/2022	\$37.21	\$35.86	3.70%	2.32%	1.93%	2.98%	0.72%	0.10
10/14/2022	\$36.46	\$37.21	-2.04%	-2.40%	-1.54%	-2.60%	0.57%	0.08
10/17/2022	\$35.92	\$36.46	-1.49%	2.64%	2.04%	3.31%	-4.80%	-0.67
10/18/2022	\$34.92	\$35.92	-2.82%	1.15%	0.06%	0.94%	-3.76%	-0.53
10/19/2022	\$33.28	\$34.92	-4.81%	-0.90%	-3.35%	-2.82%	-1.99%	-0.28

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
10/20/2022	\$33.94	\$33.28	1.96%	-0.75%	-0.57%	-0.79%	2.76%	0.39
10/21/2022	\$34.99	\$33.94	3.05%	2.19%	2.56%	3.37%	-0.32%	-0.05
10/24/2022	\$34.07	\$34.99	-2.66%	0.87%	0.86%	1.30%	-3.96%	-0.56
10/25/2022	\$34.31	\$34.07	0.70%	1.81%	1.68%	2.47%	-1.77%	-0.25
10/26/2022	\$35.55	\$34.31	3.55%	-0.46%	1.43%	0.81%	2.74%	0.39
10/27/2022	\$34.83	\$35.55	-2.05%	-0.41%	-1.45%	-1.19%	-0.85%	-0.12
10/28/2022	\$36.76	\$34.83	5.39%	2.11%	4.05%	4.31%	1.08%	0.15
10/31/2022	\$36.44	\$36.76	-0.87%	-0.60%	-0.86%	-0.86%	-0.02%	0.00
11/1/2022	\$35.96	\$36.44	-1.33%	-0.22%	0.87%	0.64%	-1.97%	-0.28
11/2/2022	\$35.72	\$35.96	-0.67%	-2.54%	-1.45%	-2.52%	1.85%	0.26
11/3/2022	\$34.21	\$35.72	-4.32%	-0.89%	0.10%	-0.48%	-3.83%	-0.55
11/4/2022	\$35.27	\$34.21	3.05%	1.31%	0.16%	1.01%	2.04%	0.29
11/7/2022	\$34.11	\$35.27	-3.34%	0.81%	0.48%	0.66%	-4.00%	-0.62
11/8/2022	\$34.89	\$34.11	2.26%	0.53%	0.91%	0.93%	1.33%	0.21
11/9/2022	\$34.59	\$34.89	-0.86%	-2.14%	-1.24%	-2.03%	1.17%	0.18
11/10/2022	\$34.96	\$34.59	1.06%	5.38%	3.51%	5.07%	-4.01%	-0.63
11/11/2022	\$37.60	\$34.96	7.28%	1.05%	0.17%	0.35%	6.93%	1.09
11/14/2022	\$41.15	\$37.60	9.02%	-0.96%	0.27%	-0.09%	9.11%	1.43
11/15/2022	\$40.10	\$41.15	-2.58%	1.01%	0.37%	0.60%	-3.19%	-0.50
11/16/2022	\$34.87	\$40.10	-13.97%	-0.98%	-0.92%	-1.16%	-12.81%	-2.02 **
11/17/2022	\$34.56	\$34.87	-0.89%	-0.41%	-0.21%	-0.38%	-0.52%	-0.08
11/18/2022	\$33.33	\$34.56	-3.62%	0.42%	0.53%	0.71%	-4.33%	-0.70
11/21/2022	\$32.61	\$33.33	-2.18%	-0.46%	-0.63%	-0.72%	-1.47%	-0.24
11/22/2022	\$32.90	\$32.61	0.89%	1.32%	0.88%	1.23%	-0.34%	-0.06
11/23/2022	\$33.64	\$32.90	2.22%	0.59%	-0.41%	-0.27%	2.49%	0.40
11/25/2022	\$34.92	\$33.64	3.73%	0.04%	0.11%	0.14%	3.59%	0.58
11/28/2022	\$33.91	\$34.92	-2.93%	-1.58%	-0.67%	-1.09%	-1.85%	-0.30
11/29/2022	\$34.40	\$33.91	1.43%	-0.07%	-0.24%	-0.27%	1.70%	0.28
11/30/2022	\$34.83	\$34.40	1.24%	2.90%	3.19%	3.97%	-2.73%	-0.45
12/1/2022	\$34.14	\$34.83	-2.00%	0.02%	0.41%	0.43%	-2.43%	-0.40
12/2/2022	\$35.83	\$34.14	4.83%	-0.06%	1.21%	1.23%	3.60%	0.59
12/5/2022	\$33.74	\$35.83	-6.01%	-1.96%	-2.15%	-2.56%	-3.45%	-0.56
12/6/2022	\$33.62	\$33.74	-0.36%	-1.42%	-1.65%	-1.94%	1.58%	0.26
12/7/2022	\$36.91	\$33.62	9.34%	-0.19%	0.96%	0.96%	8.37%	1.37
12/8/2022	\$38.49	\$36.91	4.19%	0.73%	1.04%	1.28%	2.91%	0.47
12/9/2022	\$38.73	\$38.49	0.62%	-0.75%	-2.13%	-2.20%	2.82%	0.46
12/12/2022	\$42.15	\$38.73	8.46%	1.29%	0.91%	1.31%	7.15%	1.17
12/13/2022	\$44.16	\$42.15	4.66%	0.73%	1.49%	1.76%	2.90%	0.47
12/14/2022	\$44.12	\$44.16	-0.09%	-0.55%	0.66%	0.62%	-0.71%	-0.12
12/15/2022	\$39.57	\$44.12	-10.88%	-2.44%	-1.83%	-2.31%	-8.58%	-1.40
12/16/2022	\$38.70	\$39.57	-2.22%	-1.04%	-0.89%	-1.06%	-1.16%	-0.19
12/19/2022	\$38.10	\$38.70	-1.56%	-0.97%	-1.91%	-1.96%	0.40%	0.06
12/20/2022	\$37.73	\$38.10	-0.98%	0.19%	1.28%	1.43%	-2.40%	-0.39
12/21/2022	\$36.89	\$37.73	-2.25%	1.45%	1.26%	1.84%	-4.09%	-0.67
12/22/2022	\$33.25	\$36.89	-10.39%	-1.41%	0.00%	-0.10%	-10.29%	-1.72 *
12/23/2022	\$31.68	\$33.25	-4.84%	0.55%	-1.52%	-1.27%	-3.56%	-0.59
12/27/2022	\$28.67	\$31.68	-9.98%	-0.39%	-2.24%	-2.19%	-7.80%	-1.29
12/28/2022	\$27.82	\$28.67	-3.01%	-1.24%	-0.30%	-0.45%	-2.56%	-0.42
12/29/2022	\$28.93	\$27.82	3.91%	1.82%	2.10%	2.51%	1.41%	0.23
12/30/2022	\$29.54	\$28.93	2.09%	-0.25%	0.32%	0.36%	1.72%	0.29
1/3/2023	\$27.76	\$29.54	-6.21%	-0.39%	-0.93%	-1.00%	-5.22%	-0.87
1/4/2023	\$29.80	\$27.76	7.09%	0.95%	1.11%	1.35%	5.74%	0.95
1/5/2023	\$29.28	\$29.80	-1.76%	-1.10%	0.21%	0.11%	-1.88%	-0.31

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
1/6/2023	\$28.57	\$29.28	-2.45%	2.20%	1.37%	1.74%	-4.20%	-0.70
1/9/2023	\$28.82	\$28.57	0.87%	0.11%	-2.33%	-2.77%	3.64%	0.61
1/10/2023	\$31.24	\$28.82	8.06%	0.73%	1.84%	2.12%	5.94%	0.99
1/11/2023	\$35.59	\$31.24	13.04%	1.25%	0.36%	0.50%	12.54%	2.09 **
1/12/2023	\$34.06	\$35.59	-4.39%	0.57%	1.18%	1.45%	-5.84%	-0.96
1/13/2023	\$34.00	\$34.06	-0.18%	0.43%	0.76%	0.92%	-1.10%	-0.18
1/17/2023	\$34.58	\$34.00	1.69%	-0.11%	-0.06%	-0.08%	1.77%	0.29
1/18/2023	\$34.16	\$34.58	-1.22%	-1.43%	-0.69%	-0.94%	-0.28%	-0.05
1/19/2023	\$33.06	\$34.16	-3.27%	-0.75%	-1.03%	-1.21%	-2.06%	-0.34
1/20/2023	\$34.84	\$33.06	5.24%	1.79%	0.91%	1.32%	3.93%	0.65
1/23/2023	\$36.44	\$34.84	4.49%	1.17%	0.61%	0.93%	3.56%	0.59
1/24/2023	\$29.44	\$36.44	-21.33%	-0.11%	0.37%	0.48%	-21.81%	-3.61 ***
1/25/2023	\$27.49	\$29.44	-6.85%	0.03%	0.05%	0.18%	-7.03%	-1.16
1/26/2023	\$27.91	\$27.49	1.52%	1.03%	0.06%	0.32%	1.19%	0.20
1/27/2023	\$28.91	\$27.91	3.52%	0.35%	0.03%	0.16%	3.36%	0.56
1/30/2023	\$27.24	\$28.91	-5.95%	-1.31%	-1.56%	-1.80%	-4.15%	-0.68
1/31/2023	\$28.00	\$27.24	2.75%	1.54%	1.18%	1.60%	1.15%	0.19
2/1/2023	\$28.80	\$28.00	2.82%	1.11%	-0.18%	0.13%	2.69%	0.44
2/2/2023	\$31.52	\$28.80	9.02%	1.37%	0.00%	0.35%	8.67%	1.43
2/3/2023	\$30.92	\$31.52	-1.92%	-1.07%	-0.38%	-0.59%	-1.33%	-0.22
2/6/2023	\$29.59	\$30.92	-4.40%	-0.72%	-0.54%	-0.65%	-3.75%	-0.62
2/7/2023	\$29.88	\$29.59	0.98%	1.14%	0.36%	0.72%	0.26%	0.04
2/8/2023	\$29.51	\$29.88	-1.25%	-1.04%	-2.38%	-2.51%	1.26%	0.21
2/9/2023	\$28.51	\$29.51	-3.45%	-0.89%	-0.35%	-0.55%	-2.90%	-0.48
2/10/2023	\$28.08	\$28.51	-1.52%	0.15%	0.33%	0.38%	-1.90%	-0.31
2/13/2023	\$26.86	\$28.08	-4.44%	1.08%	1.03%	1.29%	-5.73%	-0.94
2/14/2023	\$25.99	\$26.86	-3.29%	0.09%	-0.12%	-0.14%	-3.15%	-0.52
2/15/2023	\$26.41	\$25.99	1.60%	0.44%	-0.07%	-0.01%	1.61%	0.27
2/16/2023	\$26.35	\$26.41	-0.23%	-1.28%	-1.40%	-1.74%	1.51%	0.25
2/17/2023	\$27.00	\$26.35	2.44%	-0.29%	1.28%	1.12%	1.32%	0.22
2/21/2023	\$25.21	\$27.00	-6.86%	-2.07%	-2.50%	-2.99%	-3.87%	-0.64
2/22/2023	\$25.24	\$25.21	0.12%	-0.06%	0.12%	0.08%	0.04%	0.01
2/23/2023	\$25.43	\$25.24	0.75%	0.49%	-0.55%	-0.42%	1.17%	0.19
2/24/2023	\$24.90	\$25.43	-2.11%	-1.02%	-1.95%	-2.13%	0.03%	0.00
2/27/2023	\$24.78	\$24.90	-0.48%	0.33%	0.44%	0.54%	-1.03%	-0.17
2/28/2023	\$24.70	\$24.78	-0.32%	-0.26%	0.22%	0.15%	-0.48%	-0.08
3/1/2023	\$25.02	\$24.70	1.29%	-0.32%	0.58%	0.49%	0.80%	0.13
3/2/2023	\$25.40	\$25.02	1.51%	0.65%	-0.18%	-0.01%	1.52%	0.25
3/3/2023	\$26.50	\$25.40	4.24%	1.54%	1.43%	1.74%	2.50%	0.42
3/6/2023	\$26.29	\$26.50	-0.80%	-0.18%	-1.06%	-1.01%	0.22%	0.04
3/7/2023	\$25.20	\$26.29	-4.23%	-1.47%	-1.22%	-1.44%	-2.80%	-0.47
3/8/2023	\$24.97	\$25.20	-0.92%	0.13%	-0.75%	-0.62%	-0.30%	-0.05
3/9/2023	\$24.79	\$24.97	-0.72%	-1.95%	-1.97%	-2.23%	1.51%	0.25
3/10/2023	\$24.90	\$24.79	0.44%	-1.66%	-1.45%	-1.66%	2.10%	0.35
3/13/2023	\$25.62	\$24.90	2.85%	-0.31%	2.70%	2.53%	0.32%	0.05
3/14/2023	\$26.01	\$25.62	1.51%	1.57%	1.13%	1.44%	0.07%	0.01
3/15/2023	\$26.05	\$26.01	0.15%	-0.93%	-0.44%	-0.54%	0.69%	0.12
3/16/2023	\$26.75	\$26.05	2.65%	1.62%	0.56%	0.92%	1.73%	0.29
3/17/2023	\$26.34	\$26.75	-1.54%	-1.21%	-1.67%	-1.69%	0.15%	0.03
3/20/2023	\$26.15	\$26.34	-0.72%	0.87%	1.12%	1.26%	-1.98%	-0.33
3/21/2023	\$25.71	\$26.15	-1.70%	1.38%	-0.15%	0.15%	-1.85%	-0.31
3/22/2023	\$23.53	\$25.71	-8.86%	-1.66%	-2.10%	-2.16%	-6.70%	-1.13
3/23/2023	\$23.95	\$23.53	1.77%	0.18%	1.25%	1.23%	0.54%	0.09

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
3/24/2023	\$24.17	\$23.95	0.91%	0.47%	1.14%	1.19%	-0.27%	-0.05
3/27/2023	\$24.14	\$24.17	-0.12%	0.32%	0.27%	0.32%	-0.45%	-0.07
3/28/2023	\$23.46	\$24.14	-2.86%	-0.08%	0.13%	0.12%	-2.97%	-0.50
3/29/2023	\$23.79	\$23.46	1.40%	1.37%	1.24%	1.40%	0.00%	0.00
3/30/2023	\$24.01	\$23.79	0.92%	0.55%	-0.64%	-0.52%	1.44%	0.24
3/31/2023	\$24.12	\$24.01	0.46%	1.45%	1.40%	1.61%	-1.16%	-0.19
4/3/2023	\$24.26	\$24.12	0.58%	0.31%	0.52%	0.57%	0.01%	0.00
4/4/2023	\$24.01	\$24.26	-1.04%	-0.66%	-0.75%	-0.79%	-0.25%	-0.04
4/5/2023	\$23.84	\$24.01	-0.71%	-0.41%	0.66%	0.62%	-1.33%	-0.22
4/6/2023	\$23.97	\$23.84	0.54%	0.31%	1.22%	1.25%	-0.71%	-0.12
4/10/2023	\$23.11	\$23.97	-3.65%	0.22%	-0.60%	-0.43%	-3.22%	-0.55
4/11/2023	\$23.40	\$23.11	1.25%	0.18%	0.15%	0.28%	0.97%	0.17
4/12/2023	\$22.90	\$23.40	-2.16%	-0.40%	-0.25%	-0.12%	-2.04%	-0.35
4/13/2023	\$23.62	\$22.90	3.10%	1.27%	2.13%	2.33%	0.76%	0.13
4/14/2023	\$23.32	\$23.62	-1.28%	-0.27%	-0.85%	-0.69%	-0.59%	-0.10
4/17/2023	\$24.69	\$23.32	5.71%	0.36%	0.95%	1.11%	4.60%	0.79
4/18/2023	\$24.56	\$24.69	-0.55%	0.07%	-0.50%	-0.32%	-0.23%	-0.04
4/19/2023	\$24.15	\$24.56	-1.66%	-0.05%	0.53%	0.71%	-2.37%	-0.41
4/20/2023	\$23.37	\$24.15	-3.28%	-0.58%	-0.81%	-0.65%	-2.63%	-0.45
4/21/2023	\$23.50	\$23.37	0.55%	0.06%	1.16%	1.34%	-0.79%	-0.14
4/24/2023	\$22.83	\$23.50	-2.89%	0.04%	-0.52%	-0.24%	-2.65%	-0.47
4/25/2023	\$21.90	\$22.83	-4.16%	-1.68%	-1.22%	-1.06%	-3.10%	-0.55
4/26/2023	\$21.59	\$21.90	-1.43%	-0.41%	-1.44%	-1.16%	-0.26%	-0.05
4/27/2023	\$22.67	\$21.59	4.88%	1.72%	0.40%	0.87%	4.01%	0.71
4/28/2023	\$23.22	\$22.67	2.40%	0.80%	0.73%	1.05%	1.35%	0.24
5/1/2023	\$23.34	\$23.22	0.52%	-0.07%	0.95%	1.09%	-0.57%	-0.10
5/2/2023	\$22.18	\$23.34	-5.10%	-1.23%	-1.43%	-1.27%	-3.83%	-0.68
5/3/2023	\$22.31	\$22.18	0.58%	-0.52%	0.70%	0.74%	-0.16%	-0.03
5/4/2023	\$22.34	\$22.31	0.13%	-0.69%	-0.12%	-0.01%	0.15%	0.03
5/5/2023	\$22.32	\$22.34	-0.09%	1.86%	1.65%	2.16%	-2.24%	-0.40
5/8/2023	\$23.12	\$22.32	3.52%	0.08%	-0.79%	-0.41%	3.94%	0.69
5/9/2023	\$26.58	\$23.12	13.95%	-0.39%	0.15%	0.30%	13.65%	2.41 **
5/10/2023	\$27.02	\$26.58	1.64%	0.41%	0.40%	0.72%	0.92%	0.16
5/11/2023	\$27.88	\$27.02	3.13%	-0.26%	-0.76%	-0.44%	3.57%	0.63
5/12/2023	\$26.47	\$27.88	-5.19%	-0.19%	-0.33%	-0.04%	-5.15%	-0.91
5/15/2023	\$26.51	\$26.47	0.15%	0.50%	1.34%	1.49%	-1.34%	-0.24
5/16/2023	\$25.28	\$26.51	-4.75%	-0.81%	-2.47%	-1.79%	-2.96%	-0.52
5/17/2023	\$25.29	\$25.28	0.04%	1.23%	0.33%	0.88%	-0.85%	-0.15
5/18/2023	\$24.63	\$25.29	-2.64%	0.84%	-0.42%	0.21%	-2.85%	-0.51
5/19/2023	\$24.14	\$24.63	-2.01%	-0.19%	0.86%	0.78%	-2.79%	-0.50
5/22/2023	\$25.22	\$24.14	4.38%	0.19%	0.63%	0.70%	3.67%	0.66
5/23/2023	\$25.31	\$25.22	0.36%	-1.05%	0.04%	-0.14%	0.49%	0.09
5/24/2023	\$25.25	\$25.31	-0.24%	-0.80%	-1.31%	-0.97%	0.73%	0.13
5/25/2023	\$24.20	\$25.25	-4.25%	0.49%	-2.07%	-1.11%	-3.14%	-0.56
5/26/2023	\$23.57	\$24.20	-2.64%	1.25%	0.12%	0.59%	-3.23%	-0.58
5/30/2023	\$22.80	\$23.57	-3.32%	-0.02%	-0.65%	-0.34%	-2.98%	-0.54
5/31/2023	\$22.71	\$22.80	-0.40%	-0.57%	0.55%	0.37%	-0.77%	-0.14
6/1/2023	\$22.52	\$22.71	-0.84%	1.01%	0.24%	0.57%	-1.41%	-0.25
6/2/2023	\$23.23	\$22.52	3.10%	1.61%	1.74%	1.77%	1.33%	0.24
6/5/2023	\$22.87	\$23.23	-1.56%	-0.28%	0.40%	0.37%	-1.93%	-0.36
6/6/2023	\$23.31	\$22.87	1.91%	0.52%	-0.16%	0.07%	1.84%	0.34
6/7/2023	\$24.01	\$23.31	2.96%	-0.20%	-0.33%	-0.21%	3.16%	0.59
6/8/2023	\$24.48	\$24.01	1.94%	0.52%	0.47%	0.59%	1.35%	0.25



**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
6/9/2023	\$24.31	\$24.48	-0.70%	0.01%	-0.59%	-0.30%	-0.40%	-0.07
6/12/2023	\$24.67	\$24.31	1.47%	0.85%	0.83%	0.94%	0.53%	0.10
6/13/2023	\$25.59	\$24.67	3.66%	0.75%	1.19%	1.16%	2.50%	0.47
6/14/2023	\$25.33	\$25.59	-1.02%	0.01%	-0.78%	-0.44%	-0.58%	-0.11
6/15/2023	\$25.07	\$25.33	-1.03%	1.16%	1.22%	1.21%	-2.25%	-0.43
6/16/2023	\$24.60	\$25.07	-1.89%	-0.38%	-0.37%	-0.15%	-1.74%	-0.33
6/20/2023	\$24.74	\$24.60	0.57%	-0.54%	-0.51%	-0.29%	0.86%	0.17
6/21/2023	\$25.21	\$24.74	1.88%	-0.47%	-0.43%	-0.23%	2.11%	0.41
6/22/2023	\$25.46	\$25.21	0.99%	0.18%	0.09%	0.22%	0.76%	0.15
6/23/2023	\$24.83	\$25.46	-2.51%	-0.85%	-1.25%	-0.81%	-1.70%	-0.33
6/26/2023	\$23.61	\$24.83	-5.04%	-0.27%	-1.27%	-0.70%	-4.34%	-0.84
6/27/2023	\$24.00	\$23.61	1.64%	1.16%	-1.14%	-0.26%	1.90%	0.37
6/28/2023	\$23.77	\$24.00	-0.96%	0.05%	0.51%	0.39%	-1.35%	-0.26
6/29/2023	\$23.66	\$23.77	-0.46%	0.47%	-0.54%	-0.05%	-0.41%	-0.08
6/30/2023	\$24.52	\$23.66	3.57%	1.10%	0.85%	0.88%	2.69%	0.52
7/3/2023	\$25.32	\$24.52	3.21%	0.21%	-0.50%	-0.09%	3.30%	0.64
7/5/2023	\$22.04	\$25.32	-13.87%	-0.33%	0.30%	0.19%	-14.06%	-2.72 ***
7/6/2023	\$22.91	\$22.04	3.87%	-0.97%	-1.35%	-0.87%	4.75%	0.92
7/7/2023	\$22.15	\$22.91	-3.37%	0.00%	-0.85%	-0.28%	-3.10%	-0.60
7/10/2023	\$21.87	\$22.15	-1.27%	0.41%	1.81%	1.39%	-2.66%	-0.52
7/11/2023	\$22.10	\$21.87	1.05%	0.77%	0.10%	0.48%	0.56%	0.11
7/12/2023	\$22.12	\$22.10	0.09%	0.80%	0.87%	0.94%	-0.85%	-0.17
7/13/2023	\$21.92	\$22.12	-0.91%	0.93%	0.41%	0.71%	-1.62%	-0.32
7/14/2023	\$21.63	\$21.92	-1.33%	-0.30%	-0.19%	0.05%	-1.38%	-0.27
7/17/2023	\$21.92	\$21.63	1.33%	0.45%	0.67%	0.72%	0.61%	0.12
7/18/2023	\$21.29	\$21.92	-2.92%	0.73%	0.33%	0.60%	-3.52%	-0.69
7/19/2023	\$21.42	\$21.29	0.61%	0.26%	0.39%	0.49%	0.12%	0.02
7/20/2023	\$21.37	\$21.42	-0.23%	-0.72%	-0.30%	-0.15%	-0.09%	-0.02
7/21/2023	\$21.60	\$21.37	1.07%	0.01%	0.68%	0.59%	0.48%	0.09
7/24/2023	\$20.63	\$21.60	-4.59%	0.33%	-1.49%	-0.54%	-4.05%	-0.79
7/25/2023	\$20.30	\$20.63	-1.61%	0.23%	-0.24%	0.12%	-1.73%	-0.34
7/26/2023	\$20.04	\$20.30	-1.29%	0.08%	-0.29%	0.05%	-1.34%	-0.26
7/27/2023	\$20.41	\$20.04	1.83%	-0.75%	-0.66%	-0.33%	2.16%	0.42
7/28/2023	\$20.98	\$20.41	2.75%	1.06%	1.69%	1.46%	1.29%	0.25
7/31/2023	\$21.98	\$20.98	4.66%	0.32%	-0.09%	0.38%	4.27%	0.85
8/1/2023	\$21.84	\$21.98	-0.64%	-0.37%	-0.90%	-0.21%	-0.43%	-0.09
8/2/2023	\$20.98	\$21.84	-4.02%	-1.45%	-0.69%	-0.73%	-3.29%	-0.66
8/3/2023	\$20.84	\$20.98	-0.67%	-0.24%	-0.28%	0.06%	-0.73%	-0.15
8/4/2023	\$20.18	\$20.84	-3.24%	-0.42%	0.42%	0.20%	-3.44%	-0.70
8/7/2023	\$18.95	\$20.18	-6.26%	0.75%	-0.56%	0.50%	-6.77%	-1.38
8/8/2023	\$18.78	\$18.95	-0.90%	-0.48%	0.65%	0.42%	-1.32%	-0.27
8/9/2023	\$18.66	\$18.78	-0.64%	-0.65%	0.36%	0.15%	-0.79%	-0.16
8/10/2023	\$18.21	\$18.66	-2.44%	0.01%	0.28%	0.36%	-2.81%	-0.58
8/11/2023	\$17.92	\$18.21	-1.61%	-0.09%	0.39%	0.34%	-1.95%	-0.40
8/14/2023	\$18.29	\$17.92	2.04%	0.40%	-0.22%	0.30%	1.74%	0.36
8/15/2023	\$17.55	\$18.29	-4.13%	-1.19%	-0.27%	-0.57%	-3.56%	-0.74
8/16/2023	\$17.09	\$17.55	-2.66%	-0.79%	-1.21%	-0.87%	-1.79%	-0.37
8/17/2023	\$17.39	\$17.09	1.74%	-0.84%	-0.44%	-0.50%	2.24%	0.46
8/18/2023	\$17.08	\$17.39	-1.80%	0.06%	0.04%	0.25%	-2.05%	-0.42
8/21/2023	\$16.78	\$17.08	-1.77%	0.55%	1.52%	1.44%	-3.21%	-0.71
8/22/2023	\$17.23	\$16.78	2.65%	-0.19%	0.05%	0.00%	2.65%	0.58
8/23/2023	\$17.42	\$17.23	1.10%	1.10%	0.45%	0.86%	0.24%	0.05
8/24/2023	\$18.40	\$17.42	5.47%	-1.26%	-1.00%	-1.17%	6.65%	1.47

**Exhibit-16**  
**Cassava Common Stock Collective Event Study Results**  
Collective Event Study on 8-K Events

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
8/25/2023	\$18.26	\$18.40	-0.76%	0.70%	0.59%	0.80%	-1.57%	-0.34
8/28/2023	\$19.51	\$18.26	6.62%	0.71%	0.45%	0.66%	5.96%	1.32
8/29/2023	\$21.24	\$19.51	8.50%	1.31%	0.80%	1.21%	7.28%	1.61
8/30/2023	\$21.70	\$21.24	2.14%	0.38%	0.18%	0.41%	1.74%	0.39
8/31/2023	\$20.97	\$21.70	-3.42%	-0.11%	-0.86%	-0.55%	-2.87%	-0.65
9/1/2023	\$21.04	\$20.97	0.33%	0.28%	0.94%	0.93%	-0.60%	-0.13
9/5/2023	\$21.02	\$21.04	-0.10%	-0.61%	-1.41%	-1.25%	1.15%	0.26
9/6/2023	\$20.57	\$21.02	-2.16%	-0.64%	-0.55%	-0.61%	-1.55%	-0.35
9/7/2023	\$21.06	\$20.57	2.35%	-0.38%	-0.14%	-0.18%	2.53%	0.57
9/8/2023	\$21.11	\$21.06	0.24%	0.10%	0.37%	0.44%	-0.20%	-0.05
9/11/2023	\$20.89	\$21.11	-1.05%	0.65%	0.45%	0.74%	-1.79%	-0.41
9/12/2023	\$19.36	\$20.89	-7.61%	-0.48%	0.00%	-0.12%	-7.48%	-1.73 *
9/13/2023	\$19.53	\$19.36	0.87%	0.00%	-0.59%	-0.53%	1.41%	0.33
9/14/2023	\$19.68	\$19.53	0.77%	0.90%	0.42%	0.72%	0.04%	0.01
9/15/2023	\$19.41	\$19.68	-1.38%	-1.06%	-0.82%	-1.08%	-0.30%	-0.07
9/18/2023	\$18.38	\$19.41	-5.45%	-0.04%	-1.08%	-0.97%	-4.48%	-1.04
9/19/2023	\$18.20	\$18.38	-0.98%	-0.26%	0.36%	0.25%	-1.24%	-0.29
9/20/2023	\$18.49	\$18.20	1.58%	-0.83%	-0.71%	-0.91%	2.49%	0.58
9/21/2023	\$17.68	\$18.49	-4.48%	-1.70%	-1.02%	-1.45%	-3.03%	-0.70
9/22/2023	\$17.54	\$17.68	-0.80%	-0.19%	-0.34%	-0.51%	-0.28%	-0.07
9/25/2023	\$17.81	\$17.54	1.53%	0.34%	-0.30%	-0.22%	1.75%	0.44
9/26/2023	\$17.07	\$17.81	-4.24%	-1.42%	0.72%	-0.70%	-3.54%	-1.05
9/27/2023	\$16.95	\$17.07	-0.71%	0.11%	0.35%	0.06%	-0.76%	-0.23
9/28/2023	\$16.86	\$16.95	-0.53%	0.66%	-0.11%	0.08%	-0.62%	-0.19
9/29/2023	\$16.64	\$16.86	-1.31%	-0.26%	-0.47%	-0.90%	-0.42%	-0.13
10/2/2023	\$16.80	\$16.64	0.96%	-0.35%	-1.41%	-1.87%	2.83%	0.88
10/3/2023	\$17.54	\$16.80	4.31%	-1.45%	-0.93%	-2.21%	6.52%	2.02 **
10/4/2023	\$18.84	\$17.54	7.15%	0.70%	0.47%	0.66%	6.49%	1.99 **
10/5/2023	\$18.76	\$18.84	-0.43%	-0.07%	1.49%	1.10%	-1.53%	-0.47
10/6/2023	\$19.06	\$18.76	1.59%	1.14%	0.56%	1.20%	0.38%	0.12
10/9/2023	\$18.74	\$19.06	-1.69%	0.61%	-0.52%	-0.21%	-1.48%	-0.45
10/10/2023	\$19.35	\$18.74	3.20%	0.64%	0.77%	1.00%	2.20%	0.68
10/11/2023	\$18.43	\$19.35	-4.87%	0.38%	0.31%	0.38%	-5.25%	-1.61
10/12/2023	\$17.54	\$18.43	-4.95%	-0.85%	-1.58%	-2.31%	-2.64%	-0.82

**Sources:** Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.

**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*" indicates statistical significance at the 99% confidence level.

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
9/14/2020	\$7.75	\$3.32	84.77%	1.53%	5.23%	4.76%	80.02%	10.30 ***
9/15/2020	\$7.02	\$7.75	-9.89%	0.54%	1.10%	1.67%	-11.56%	-1.49
9/16/2020	\$7.04	\$7.02	0.28%	-0.32%	0.04%	0.53%	-0.25%	-0.03
9/17/2020	\$7.09	\$7.04	0.71%	-0.79%	-0.39%	0.04%	0.67%	0.09
9/18/2020	\$10.07	\$7.09	35.09%	-0.89%	0.40%	0.47%	34.62%	4.43 ***
9/21/2020	\$9.82	\$10.07	-2.51%	-1.26%	-2.50%	-1.46%	-1.05%	-0.13
9/22/2020	\$10.45	\$9.82	6.22%	0.93%	0.83%	1.77%	4.45%	0.55
9/23/2020	\$9.76	\$10.45	-6.83%	-2.43%	-1.39%	-1.02%	-5.81%	-0.72
9/24/2020	\$9.71	\$9.76	-0.51%	0.20%	-0.99%	0.13%	-0.64%	-0.08
9/25/2020	\$11.47	\$9.71	16.66%	1.56%	2.16%	2.98%	13.68%	1.69 *
9/28/2020	\$11.16	\$11.47	-2.74%	1.64%	0.69%	1.93%	-4.67%	-0.57
9/29/2020	\$11.41	\$11.16	2.22%	-0.40%	0.16%	0.85%	1.36%	0.17
9/30/2020	\$11.51	\$11.41	0.87%	0.69%	0.55%	1.52%	-0.64%	-0.08
10/1/2020	\$11.40	\$11.51	-0.96%	0.78%	0.94%	1.85%	-2.82%	-0.35
10/2/2020	\$10.66	\$11.40	-6.71%	-0.78%	-2.21%	-1.23%	-5.48%	-0.67
10/5/2020	\$11.57	\$10.66	8.19%	1.81%	4.30%	5.06%	3.14%	0.38
10/6/2020	\$11.35	\$11.57	-1.92%	-1.20%	-1.18%	-0.54%	-1.38%	-0.17
10/7/2020	\$12.13	\$11.35	6.65%	1.69%	2.18%	3.21%	3.43%	0.42
10/8/2020	\$12.25	\$12.13	0.98%	0.85%	0.26%	1.29%	-0.30%	-0.04
10/9/2020	\$11.92	\$12.25	-2.73%	0.85%	0.79%	1.78%	-4.51%	-0.55
10/12/2020	\$11.43	\$11.92	-4.20%	1.34%	0.73%	1.83%	-6.02%	-0.74
10/13/2020	\$11.22	\$11.43	-1.85%	-0.50%	0.49%	1.14%	-2.99%	-0.37
10/14/2020	\$10.99	\$11.22	-2.07%	-0.60%	-1.28%	-0.52%	-1.56%	-0.19
10/15/2020	\$10.89	\$10.99	-0.91%	-0.08%	-2.35%	-1.39%	0.47%	0.06
10/16/2020	\$10.48	\$10.89	-3.84%	-0.07%	0.49%	1.25%	-5.09%	-0.62
10/19/2020	\$9.84	\$10.48	-6.30%	-1.43%	-1.82%	-1.21%	-5.10%	-0.62
10/20/2020	\$9.40	\$9.84	-4.57%	0.38%	-0.59%	0.33%	-4.90%	-0.60
10/21/2020	\$8.91	\$9.40	-5.35%	-0.34%	-1.61%	-0.84%	-4.52%	-0.55
10/22/2020	\$8.83	\$8.91	-0.90%	0.61%	1.33%	2.27%	-3.17%	-0.39
10/23/2020	\$9.32	\$8.83	5.40%	0.38%	0.26%	1.09%	4.31%	0.53
10/26/2020	\$9.07	\$9.32	-2.72%	-1.83%	-0.92%	-0.48%	-2.24%	-0.28
10/27/2020	\$9.11	\$9.07	0.44%	-0.30%	0.52%	1.22%	-0.78%	-0.10
10/28/2020	\$8.67	\$9.11	-4.95%	-3.34%	-2.57%	-2.41%	-2.54%	-0.31
10/29/2020	\$8.73	\$8.67	0.69%	1.04%	0.62%	1.54%	-0.85%	-0.10
10/30/2020	\$8.21	\$8.73	-6.14%	-1.32%	-2.16%	-1.71%	-4.44%	-0.55
11/2/2020	\$8.93	\$8.21	8.41%	1.20%	0.10%	1.02%	7.39%	0.91
11/3/2020	\$9.19	\$8.93	2.87%	1.86%	1.67%	2.82%	0.05%	0.01
11/4/2020	\$11.54	\$9.19	22.77%	1.94%	6.02%	7.34%	15.43%	1.89 *
11/5/2020	\$10.51	\$11.54	-9.35%	2.09%	-0.11%	1.03%	-10.38%	-1.27
11/6/2020	\$10.70	\$10.51	1.79%	0.00%	-1.57%	-1.01%	2.80%	0.34
11/9/2020	\$10.16	\$10.70	-5.18%	1.06%	-0.73%	0.07%	-5.25%	-0.64
11/10/2020	\$9.98	\$10.16	-1.79%	-0.06%	0.19%	0.95%	-2.74%	-0.33

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
11/11/2020	\$10.86	\$9.98	8.45%	0.80%	1.18%	2.14%	6.31%	0.77
11/12/2020	\$11.18	\$10.86	2.90%	-0.97%	-0.01%	0.70%	2.20%	0.27
11/13/2020	\$8.37	\$11.18	-28.95%	1.32%	1.25%	2.30%	-31.25%	-3.81 ***
11/16/2020	\$8.13	\$8.37	-2.91%	1.23%	0.00%	0.86%	-3.77%	-0.46
11/17/2020	\$7.95	\$8.13	-2.24%	-0.15%	-0.44%	0.26%	-2.50%	-0.30
11/18/2020	\$7.48	\$7.95	-6.09%	-0.91%	-1.96%	-1.58%	-4.52%	-0.55
11/19/2020	\$7.47	\$7.48	-0.13%	0.58%	0.14%	0.94%	-1.07%	-0.13
11/20/2020	\$7.33	\$7.47	-1.89%	-0.43%	0.62%	1.49%	-3.38%	-0.41
11/23/2020	\$7.10	\$7.33	-3.19%	0.79%	0.24%	1.05%	-4.24%	-0.52
11/24/2020	\$7.25	\$7.10	2.09%	1.50%	-0.66%	-0.02%	2.11%	0.26
11/25/2020	\$7.70	\$7.25	6.02%	0.02%	0.54%	1.35%	4.68%	0.57
11/27/2020	\$7.76	\$7.70	0.78%	0.40%	3.06%	4.35%	-3.58%	-0.43
11/30/2020	\$7.72	\$7.76	-0.52%	-0.58%	1.09%	1.92%	-2.44%	-0.30
12/1/2020	\$7.53	\$7.72	-2.49%	0.96%	0.37%	1.20%	-3.69%	-0.45
12/2/2020	\$7.31	\$7.53	-2.97%	0.12%	-0.28%	0.32%	-3.29%	-0.40
12/3/2020	\$7.49	\$7.31	2.43%	0.23%	0.89%	1.67%	0.76%	0.09
12/4/2020	\$7.73	\$7.49	3.15%	1.04%	1.00%	1.84%	1.31%	0.16
12/7/2020	\$7.56	\$7.73	-2.22%	-0.02%	-0.04%	0.57%	-2.79%	-0.34
12/8/2020	\$7.91	\$7.56	4.53%	0.43%	1.70%	2.62%	1.91%	0.23
12/9/2020	\$7.87	\$7.91	-0.51%	-0.96%	-1.78%	-1.50%	1.00%	0.12
12/10/2020	\$7.70	\$7.87	-2.18%	0.26%	1.47%	2.39%	-4.57%	-0.56
12/11/2020	\$8.12	\$7.70	5.31%	-0.23%	0.21%	0.85%	4.46%	0.55
12/14/2020	\$7.76	\$8.12	-4.53%	-0.33%	2.38%	3.36%	-7.90%	-0.97
12/15/2020	\$8.05	\$7.76	3.67%	1.30%	0.08%	0.77%	2.90%	0.36
12/16/2020	\$7.93	\$8.05	-1.50%	0.14%	-0.63%	-0.09%	-1.41%	-0.17
12/17/2020	\$8.41	\$7.93	5.88%	0.79%	1.38%	2.29%	3.59%	0.44
12/18/2020	\$8.04	\$8.41	-4.50%	-0.21%	0.40%	1.14%	-5.64%	-0.69
12/21/2020	\$7.83	\$8.04	-2.65%	-0.29%	0.47%	1.12%	-3.77%	-0.46
12/22/2020	\$7.57	\$7.83	-3.38%	0.06%	0.27%	0.84%	-4.22%	-0.52
12/23/2020	\$7.64	\$7.57	0.92%	0.14%	0.30%	0.66%	0.26%	0.03
12/24/2020	\$7.46	\$7.64	-2.38%	0.23%	-0.78%	-0.49%	-1.90%	-0.26
12/28/2020	\$7.17	\$7.46	-3.96%	0.38%	-1.55%	-1.12%	-2.85%	-0.39
12/29/2020	\$6.79	\$7.17	-5.45%	-0.37%	-1.19%	-1.14%	-4.30%	-0.60
12/30/2020	\$7.01	\$6.79	3.19%	0.33%	0.46%	0.61%	2.58%	0.37
12/31/2020	\$6.82	\$7.01	-2.75%	0.36%	-0.67%	-0.55%	-2.20%	-0.32
1/4/2021	\$7.09	\$6.82	3.88%	-1.32%	-0.59%	-0.72%	4.61%	0.69
1/5/2021	\$7.68	\$7.09	7.99%	0.90%	0.15%	0.03%	7.97%	1.26
1/6/2021	\$8.18	\$7.68	6.31%	0.80%	1.30%	1.62%	4.69%	0.74
1/7/2021	\$8.42	\$8.18	2.89%	1.61%	2.88%	3.75%	-0.86%	-0.14
1/8/2021	\$8.38	\$8.42	-0.48%	0.47%	0.61%	0.76%	-1.24%	-0.20
1/11/2021	\$8.29	\$8.38	-1.08%	-0.57%	-0.14%	-0.16%	-0.92%	-0.15
1/12/2021	\$8.18	\$8.29	-1.34%	0.42%	0.24%	0.28%	-1.62%	-0.26

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
1/13/2021	\$11.45	\$8.18	33.63%	0.09%	-0.22%	-0.23%	33.86%	5.51 ***
1/14/2021	\$10.48	\$11.45	-8.85%	0.00%	2.41%	2.98%	-11.84%	-1.82 *
1/15/2021	\$10.57	\$10.48	0.86%	0.86%	-0.08%	-0.15%	1.00%	0.15
1/19/2021	\$12.97	\$10.57	20.46%	0.85%	1.89%	2.23%	18.23%	2.80 ***
1/20/2021	\$12.24	\$12.97	-5.79%	1.20%	0.25%	0.58%	-6.37%	-0.96
1/21/2021	\$12.08	\$12.24	-1.32%	-0.09%	-1.05%	-1.07%	-0.25%	-0.04
1/22/2021	\$12.87	\$12.08	6.33%	-0.15%	0.91%	1.16%	5.17%	0.78
1/25/2021	\$15.68	\$12.87	19.75%	0.24%	1.71%	2.17%	17.58%	2.65 ***
1/26/2021	\$19.43	\$15.68	21.44%	-0.29%	-1.81%	-1.93%	23.38%	3.48 ***
1/27/2021	\$19.75	\$19.43	1.63%	-2.51%	-3.04%	-3.30%	4.94%	0.72
1/28/2021	\$18.72	\$19.75	-5.36%	0.92%	0.35%	0.82%	-6.17%	-0.91
1/29/2021	\$19.82	\$18.72	5.71%	-1.78%	0.31%	0.40%	5.31%	0.78
2/1/2021	\$22.99	\$19.82	14.84%	1.71%	1.16%	1.78%	13.06%	1.92 *
2/2/2021	\$55.44	\$22.99	88.02%	1.39%	1.06%	1.71%	86.32%	12.58 ***
2/3/2021	\$87.95	\$55.44	46.15%	0.14%	-0.33%	0.42%	45.72%	5.17 ***
2/4/2021	\$63.43	\$87.95	-32.68%	1.12%	1.44%	2.71%	-35.40%	-3.79 ***
2/5/2021	\$44.80	\$63.43	-34.77%	0.61%	1.66%	2.57%	-37.34%	-3.89 ***
2/8/2021	\$60.67	\$44.80	30.32%	0.97%	2.09%	2.77%	27.55%	2.78 ***
2/9/2021	\$57.56	\$60.67	-5.26%	0.10%	-0.62%	0.22%	-5.48%	-0.55
2/10/2021	\$49.29	\$57.56	-15.51%	-0.03%	-0.85%	-0.05%	-15.46%	-1.56
2/11/2021	\$48.19	\$49.29	-2.26%	0.19%	-0.19%	0.59%	-2.85%	-0.29
2/12/2021	\$46.12	\$48.19	-4.39%	0.47%	0.49%	1.26%	-5.65%	-0.57
2/16/2021	\$51.83	\$46.12	11.67%	-0.11%	-2.18%	-1.20%	12.87%	1.29
2/17/2021	\$51.22	\$51.83	-1.18%	-0.23%	0.42%	0.94%	-2.12%	-0.21
2/18/2021	\$51.00	\$51.22	-0.43%	-0.66%	-1.86%	-1.12%	0.69%	0.07
2/19/2021	\$55.76	\$51.00	8.92%	0.27%	1.04%	1.68%	7.24%	0.73
2/22/2021	\$53.02	\$55.76	-5.04%	-0.97%	-2.44%	-1.72%	-3.32%	-0.33
2/23/2021	\$52.37	\$53.02	-1.23%	-0.13%	-1.44%	-0.60%	-0.64%	-0.06
2/24/2021	\$53.06	\$52.37	1.31%	1.12%	0.87%	1.85%	-0.54%	-0.05
2/25/2021	\$50.88	\$53.06	-4.20%	-2.70%	-2.59%	-2.51%	-1.68%	-0.17
2/26/2021	\$48.58	\$50.88	-4.63%	-0.39%	-0.02%	0.58%	-5.21%	-0.52
3/1/2021	\$50.06	\$48.58	3.00%	2.45%	1.61%	2.96%	0.04%	0.00
3/2/2021	\$51.55	\$50.06	2.93%	-0.91%	-2.01%	-1.36%	4.29%	0.43
3/3/2021	\$48.70	\$51.55	-5.69%	-1.48%	-3.68%	-2.90%	-2.79%	-0.28
3/4/2021	\$44.48	\$48.70	-9.06%	-1.68%	-2.46%	-1.93%	-7.13%	-0.72
3/5/2021	\$43.41	\$44.48	-2.44%	1.72%	1.97%	3.09%	-5.53%	-0.56
3/8/2021	\$45.02	\$43.41	3.64%	-0.59%	-1.98%	-1.30%	4.94%	0.50
3/9/2021	\$52.05	\$45.02	14.51%	1.67%	2.92%	3.88%	10.63%	1.07
3/10/2021	\$51.60	\$52.05	-0.87%	0.68%	0.07%	1.00%	-1.87%	-0.19
3/11/2021	\$54.29	\$51.60	5.08%	1.41%	2.76%	3.55%	1.53%	0.15
3/12/2021	\$53.44	\$54.29	-1.58%	0.15%	-0.61%	0.36%	-1.94%	-0.20
3/15/2021	\$52.71	\$53.44	-1.38%	0.70%	1.49%	2.18%	-3.56%	-0.36

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
3/16/2021	\$52.16	\$52.71	-1.05%	-0.43%	0.00%	0.96%	-2.01%	-0.21
3/17/2021	\$62.52	\$52.16	18.12%	0.36%	0.63%	1.34%	16.78%	1.72 *
3/18/2021	\$56.25	\$62.52	-10.57%	-1.81%	-3.26%	-1.87%	-8.70%	-0.89
3/19/2021	\$57.77	\$56.25	2.67%	0.18%	1.73%	2.53%	0.13%	0.01
3/22/2021	\$55.81	\$57.77	-3.45%	0.48%	1.34%	2.10%	-5.55%	-0.57
3/23/2021	\$52.39	\$55.81	-6.32%	-1.21%	-4.02%	-2.62%	-3.71%	-0.38
3/24/2021	\$48.81	\$52.39	-7.08%	-0.91%	-2.96%	-1.80%	-5.28%	-0.54
3/25/2021	\$49.71	\$48.81	1.83%	0.65%	1.11%	1.85%	-0.02%	0.00
3/26/2021	\$46.57	\$49.71	-6.52%	1.52%	0.27%	1.14%	-7.66%	-0.79
3/29/2021	\$44.48	\$46.57	-4.59%	-0.53%	-1.39%	-0.48%	-4.11%	-0.42
3/30/2021	\$43.96	\$44.48	-1.18%	0.00%	-0.36%	0.45%	-1.63%	-0.17
3/31/2021	\$44.95	\$43.96	2.23%	0.56%	2.51%	3.34%	-1.12%	-0.11
4/1/2021	\$46.87	\$44.95	4.18%	1.27%	0.83%	1.78%	2.41%	0.25
4/5/2021	\$44.83	\$46.87	-4.45%	1.14%	0.45%	1.45%	-5.90%	-0.61
4/6/2021	\$42.82	\$44.83	-4.59%	0.03%	-0.58%	0.18%	-4.77%	-0.49
4/7/2021	\$41.46	\$42.82	-3.23%	-0.15%	-1.78%	-0.99%	-2.24%	-0.23
4/8/2021	\$42.10	\$41.46	1.53%	0.59%	0.32%	1.17%	0.36%	0.04
4/9/2021	\$41.57	\$42.10	-1.27%	0.55%	-0.38%	0.53%	-1.80%	-0.19
4/12/2021	\$35.96	\$41.57	-14.50%	-0.07%	-1.44%	-0.66%	-13.84%	-1.43
4/13/2021	\$36.03	\$35.96	0.19%	0.40%	1.75%	2.44%	-2.25%	-0.23
4/14/2021	\$35.67	\$36.03	-1.00%	-0.29%	1.51%	1.80%	-2.81%	-0.29
4/15/2021	\$35.09	\$35.67	-1.64%	1.00%	1.26%	2.09%	-3.73%	-0.38
4/16/2021	\$34.85	\$35.09	-0.69%	0.26%	0.05%	0.71%	-1.39%	-0.14
4/19/2021	\$33.99	\$34.85	-2.50%	-0.70%	-1.09%	-0.69%	-1.80%	-0.19
4/20/2021	\$32.15	\$33.99	-5.57%	-0.91%	0.02%	0.19%	-5.76%	-0.59
4/21/2021	\$34.87	\$32.15	8.12%	1.12%	2.00%	2.88%	5.24%	0.54
4/22/2021	\$36.08	\$34.87	3.41%	-0.73%	-0.16%	0.14%	3.27%	0.34
4/23/2021	\$39.59	\$36.08	9.28%	1.20%	0.46%	1.48%	7.80%	0.80
4/26/2021	\$41.81	\$39.59	5.46%	0.44%	2.02%	2.65%	2.80%	0.29
4/27/2021	\$44.34	\$41.81	5.88%	-0.02%	-0.43%	0.09%	5.78%	0.61
4/28/2021	\$47.10	\$44.34	6.04%	0.01%	-0.72%	-0.17%	6.20%	0.65
4/29/2021	\$47.57	\$47.10	0.99%	0.35%	-1.12%	-0.42%	1.42%	0.15
4/30/2021	\$46.80	\$47.57	-1.63%	-0.80%	-0.03%	0.27%	-1.90%	-0.20
5/3/2021	\$42.99	\$46.80	-8.49%	0.20%	-0.03%	0.61%	-9.10%	-0.95
5/4/2021	\$41.15	\$42.99	-4.37%	-0.85%	-3.10%	-2.94%	-1.43%	-0.15
5/5/2021	\$42.02	\$41.15	2.09%	-0.01%	-0.80%	-0.31%	2.40%	0.25
5/6/2021	\$41.79	\$42.02	-0.55%	0.48%	-0.36%	0.33%	-0.88%	-0.09
5/7/2021	\$41.43	\$41.79	-0.87%	0.86%	0.90%	1.77%	-2.63%	-0.28
5/10/2021	\$38.62	\$41.43	-7.02%	-1.24%	-1.85%	-1.77%	-5.25%	-0.55
5/11/2021	\$39.23	\$38.62	1.57%	-0.66%	0.53%	0.91%	0.66%	0.07
5/12/2021	\$37.49	\$39.23	-4.54%	-2.28%	-0.93%	-1.07%	-3.47%	-0.36
5/13/2021	\$37.78	\$37.49	0.77%	0.97%	0.01%	0.75%	0.03%	0.00

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
5/14/2021	\$40.92	\$37.78	7.98%	1.74%	2.21%	3.25%	4.74%	0.50
5/17/2021	\$43.88	\$40.92	6.98%	-0.14%	0.39%	0.89%	6.09%	0.64
5/18/2021	\$46.72	\$43.88	6.27%	-0.60%	0.27%	0.68%	5.59%	0.59
5/19/2021	\$47.96	\$46.72	2.62%	-0.38%	-1.04%	-0.70%	3.32%	0.35
5/20/2021	\$49.39	\$47.96	2.94%	1.11%	2.26%	3.22%	-0.28%	-0.03
5/21/2021	\$50.02	\$49.39	1.27%	-0.03%	-0.69%	-0.20%	1.47%	0.15
5/24/2021	\$48.28	\$50.02	-3.54%	0.93%	-0.57%	0.07%	-3.61%	-0.38
5/25/2021	\$47.77	\$48.28	-1.06%	-0.27%	-0.62%	-0.16%	-0.91%	-0.10
5/26/2021	\$50.90	\$47.77	6.35%	0.45%	0.62%	1.32%	5.02%	0.53
5/27/2021	\$55.60	\$50.90	8.83%	0.29%	0.42%	1.12%	7.72%	0.81
5/28/2021	\$53.92	\$55.60	-3.07%	0.10%	0.43%	1.16%	-4.23%	-0.44
6/1/2021	\$57.06	\$53.92	5.66%	0.17%	-0.67%	-0.16%	5.82%	0.61
6/2/2021	\$60.70	\$57.06	6.18%	0.17%	0.32%	1.05%	5.14%	0.54
6/3/2021	\$62.06	\$60.70	2.22%	-0.52%	-0.11%	0.52%	1.69%	0.18
6/4/2021	\$64.16	\$62.06	3.33%	0.84%	1.23%	2.23%	1.10%	0.12
6/7/2021	\$67.59	\$64.16	5.21%	0.16%	3.56%	4.83%	0.38%	0.04
6/8/2021	\$68.96	\$67.59	2.01%	0.18%	-0.09%	0.75%	1.26%	0.13
6/9/2021	\$66.38	\$68.96	-3.81%	-0.29%	1.40%	2.34%	-6.15%	-0.66
6/10/2021	\$66.35	\$66.38	-0.05%	0.40%	1.74%	2.70%	-2.74%	-0.29
6/11/2021	\$77.00	\$66.35	14.89%	0.31%	-0.74%	0.07%	14.81%	1.58
6/14/2021	\$75.79	\$77.00	-1.58%	0.13%	-0.08%	0.80%	-2.38%	-0.25
6/15/2021	\$72.10	\$75.79	-4.99%	-0.30%	-1.63%	-0.84%	-4.15%	-0.44
6/16/2021	\$80.27	\$72.10	10.73%	-0.47%	-0.76%	-0.05%	10.79%	1.14
6/17/2021	\$78.60	\$80.27	-2.10%	-0.14%	0.67%	1.51%	-3.61%	-0.38
6/18/2021	\$79.65	\$78.60	1.33%	-1.26%	-0.31%	0.27%	1.05%	0.11
6/21/2021	\$89.72	\$79.65	11.91%	1.35%	0.82%	2.03%	9.88%	1.05
6/22/2021	\$77.63	\$89.72	-14.47%	0.49%	0.20%	1.28%	-15.76%	-1.66 *
6/23/2021	\$77.56	\$77.63	-0.09%	-0.01%	-0.35%	0.58%	-0.67%	-0.07
6/24/2021	\$81.46	\$77.56	4.91%	0.65%	1.26%	2.40%	2.51%	0.27
6/25/2021	\$78.41	\$81.46	-3.82%	0.32%	0.79%	1.80%	-5.61%	-0.60
6/28/2021	\$85.48	\$78.41	8.63%	0.11%	0.19%	1.11%	7.53%	0.80
6/29/2021	\$82.97	\$85.48	-2.98%	0.00%	-0.02%	0.80%	-3.78%	-0.40
6/30/2021	\$85.44	\$82.97	2.93%	0.04%	0.35%	1.20%	1.73%	0.19
7/1/2021	\$88.77	\$85.44	3.82%	0.42%	1.16%	2.28%	1.54%	0.16
7/2/2021	\$90.05	\$88.77	1.43%	0.50%	-0.45%	0.81%	0.62%	0.07
7/6/2021	\$92.80	\$90.05	3.01%	-0.30%	-1.50%	-0.78%	3.79%	0.40
7/7/2021	\$96.76	\$92.80	4.18%	0.11%	-1.32%	-0.27%	4.45%	0.48
7/8/2021	\$106.00	\$96.76	9.12%	-0.90%	0.49%	0.64%	8.48%	0.91
7/9/2021	\$95.34	\$106.00	-10.60%	1.28%	0.84%	2.71%	-13.31%	-1.42
7/12/2021	\$99.32	\$95.34	4.09%	0.22%	-0.44%	0.64%	3.45%	0.37
7/13/2021	\$103.80	\$99.32	4.41%	-0.60%	-1.09%	-0.53%	4.94%	0.53
7/14/2021	\$97.00	\$103.80	-6.78%	-0.24%	-1.26%	-0.54%	-6.24%	-0.66

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
7/15/2021	\$82.43	\$97.00	-16.28%	-0.39%	-0.01%	0.65%	-16.92%	-1.80 *
7/16/2021	\$80.09	\$82.43	-2.88%	-0.76%	1.07%	1.45%	-4.33%	-0.46
7/19/2021	\$82.26	\$80.09	2.67%	-1.47%	0.77%	0.52%	2.15%	0.23
7/20/2021	\$90.83	\$82.26	9.91%	1.68%	1.32%	3.44%	6.47%	0.69
7/21/2021	\$117.60	\$90.83	25.83%	0.96%	0.60%	2.27%	23.56%	2.50 **
7/22/2021	\$126.61	\$117.60	7.38%	0.03%	-0.13%	0.86%	6.53%	0.68
7/23/2021	\$123.38	\$126.61	-2.58%	0.89%	0.79%	2.62%	-5.20%	-0.55
7/26/2021	\$119.99	\$123.38	-2.79%	0.16%	-2.03%	-1.12%	-1.67%	-0.17
7/27/2021	\$127.50	\$119.99	6.07%	-0.60%	-0.93%	-0.59%	6.66%	0.70
7/28/2021	\$135.30	\$127.50	5.94%	0.30%	2.92%	4.75%	1.18%	0.12
7/29/2021	\$103.35	\$135.30	-26.94%	0.45%	-0.84%	0.34%	-27.27%	-2.86 ***
7/30/2021	\$69.53	\$103.35	-39.64%	-0.56%	-0.14%	0.43%	-40.07%	-4.20 ***
8/2/2021	\$79.98	\$69.53	14.00%	-0.14%	-0.01%	0.73%	13.27%	1.34
8/3/2021	\$84.86	\$79.98	5.92%	0.68%	2.17%	4.04%	1.88%	0.19
8/4/2021	\$88.26	\$84.86	3.93%	-0.40%	1.37%	2.24%	1.69%	0.17
8/5/2021	\$101.59	\$88.26	14.07%	0.71%	1.82%	3.78%	10.28%	1.04
8/6/2021	\$96.41	\$101.59	-5.23%	0.08%	-1.51%	-0.78%	-4.46%	-0.45
8/9/2021	\$104.99	\$96.41	8.53%	-0.04%	2.56%	4.18%	4.35%	0.44
8/10/2021	\$108.62	\$104.99	3.40%	0.07%	-1.64%	-1.00%	4.40%	0.44
8/11/2021	\$108.97	\$108.62	0.32%	0.24%	-3.04%	-2.61%	2.93%	0.29
8/12/2021	\$120.30	\$108.97	9.89%	0.20%	0.85%	2.30%	7.59%	0.76
8/13/2021	\$122.57	\$120.30	1.87%	0.03%	-0.06%	1.01%	0.85%	0.09
8/16/2021	\$116.67	\$122.57	-4.93%	-0.08%	-1.38%	-0.69%	-4.24%	-0.43
8/17/2021	\$104.62	\$116.67	-10.90%	-0.79%	1.99%	2.97%	-13.87%	-1.40
8/18/2021	\$106.17	\$104.62	1.47%	-0.89%	-1.37%	-1.44%	2.91%	0.29
8/19/2021	\$101.23	\$106.17	-4.76%	-0.23%	-2.57%	-2.10%	-2.66%	-0.27
8/20/2021	\$104.06	\$101.23	2.76%	0.86%	1.64%	3.72%	-0.96%	-0.10
8/23/2021	\$115.61	\$104.06	10.53%	1.05%	3.09%	5.56%	4.97%	0.50
8/24/2021	\$117.83	\$115.61	1.90%	0.42%	-0.34%	1.08%	0.83%	0.08
8/25/2021	\$80.86	\$117.83	-37.65%	0.26%	0.47%	1.87%	-39.52%	-3.97 ***
8/26/2021	\$70.85	\$80.86	-13.22%	-0.65%	-0.65%	-0.45%	-12.76%	-1.24
8/27/2021	\$58.34	\$70.85	-19.43%	1.09%	0.33%	2.38%	-21.81%	-2.11 **
8/30/2021	\$53.26	\$58.34	-9.11%	0.30%	-0.23%	0.82%	-9.93%	-0.95
8/31/2021	\$56.85	\$53.26	6.52%	-0.11%	0.62%	1.37%	5.15%	0.49
9/1/2021	\$51.96	\$56.85	-8.99%	0.20%	1.02%	2.17%	-11.16%	-1.07
9/2/2021	\$54.35	\$51.96	4.50%	0.41%	1.06%	2.32%	2.18%	0.21
9/3/2021	\$50.20	\$54.35	-7.94%	-0.01%	-0.19%	0.53%	-8.47%	-0.81
9/7/2021	\$47.84	\$50.20	-4.82%	-0.42%	-0.27%	-0.03%	-4.79%	-0.46
9/8/2021	\$46.49	\$47.84	-2.86%	-0.35%	-1.06%	-0.91%	-1.95%	-0.19
9/9/2021	\$49.72	\$46.49	6.72%	-0.29%	0.31%	0.66%	6.06%	0.58
9/10/2021	\$50.64	\$49.72	1.83%	-0.73%	-0.52%	-0.74%	2.57%	0.25
9/13/2021	\$47.12	\$50.64	-7.20%	0.20%	-1.22%	-0.55%	-6.66%	-0.64



## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
9/14/2021	\$41.79	\$47.12	-12.00%	-0.62%	-0.27%	-0.34%	-11.66%	-1.12
9/15/2021	\$43.92	\$41.79	4.97%	0.85%	0.95%	2.62%	2.35%	0.22
9/16/2021	\$43.95	\$43.92	0.07%	-0.09%	0.50%	1.15%	-1.08%	-0.10
9/17/2021	\$48.51	\$43.95	9.87%	-0.74%	0.59%	0.52%	9.35%	0.90
9/20/2021	\$48.26	\$48.51	-0.52%	-1.84%	-2.22%	-3.99%	3.47%	0.33
9/21/2021	\$52.86	\$48.26	9.10%	0.09%	1.00%	1.72%	7.38%	0.73
9/22/2021	\$52.31	\$52.86	-1.05%	0.99%	-0.13%	1.70%	-2.75%	-0.27
9/23/2021	\$60.12	\$52.31	13.92%	1.20%	1.40%	3.63%	10.29%	1.01
9/24/2021	\$61.94	\$60.12	2.98%	-0.01%	-1.89%	-1.61%	4.59%	0.45
9/27/2021	\$68.53	\$61.94	10.11%	-0.10%	-0.78%	-0.40%	10.51%	1.03
9/28/2021	\$64.99	\$68.53	-5.30%	-2.10%	-3.01%	-5.22%	-0.09%	-0.01
9/29/2021	\$62.14	\$64.99	-4.48%	-0.01%	-0.43%	0.16%	-4.64%	-0.46
9/30/2021	\$62.08	\$62.14	-0.10%	-0.95%	0.20%	-0.46%	0.37%	0.04
10/1/2021	\$60.52	\$62.08	-2.55%	1.06%	-1.76%	0.16%	-2.70%	-0.26
10/4/2021	\$54.31	\$60.52	-10.83%	-1.30%	-2.00%	-3.23%	-7.60%	-0.74
10/5/2021	\$57.17	\$54.31	5.13%	0.95%	0.16%	2.02%	3.12%	0.31
10/6/2021	\$52.51	\$57.17	-8.50%	0.28%	-1.17%	-0.27%	-8.23%	-0.81
10/7/2021	\$53.62	\$52.51	2.09%	0.99%	1.25%	3.24%	-1.15%	-0.11
10/8/2021	\$51.49	\$53.62	-4.05%	-0.25%	-0.53%	-0.36%	-3.70%	-0.36
10/11/2021	\$51.08	\$51.49	-0.80%	-0.64%	-0.03%	-0.34%	-0.46%	-0.05
10/12/2021	\$51.88	\$51.08	1.55%	0.02%	0.10%	0.70%	0.85%	0.08
10/13/2021	\$54.99	\$51.88	5.82%	0.48%	0.42%	1.71%	4.11%	0.40
10/14/2021	\$53.37	\$54.99	-2.99%	1.58%	1.31%	4.26%	-7.25%	-0.71
10/15/2021	\$49.69	\$53.37	-7.14%	0.57%	-0.68%	0.60%	-7.75%	-0.76
10/18/2021	\$50.16	\$49.69	0.94%	0.33%	-1.29%	-0.49%	1.43%	0.14
10/19/2021	\$47.50	\$50.16	-5.45%	0.68%	1.11%	2.71%	-8.16%	-0.80
10/20/2021	\$46.39	\$47.50	-2.36%	0.39%	-0.07%	0.96%	-3.33%	-0.32
10/21/2021	\$46.56	\$46.39	0.37%	0.29%	0.72%	1.74%	-1.37%	-0.13
10/22/2021	\$45.71	\$46.56	-1.84%	-0.17%	-0.45%	-0.12%	-1.72%	-0.17
10/25/2021	\$47.81	\$45.71	4.49%	0.55%	1.10%	2.48%	2.01%	0.20
10/26/2021	\$47.17	\$47.81	-1.35%	-0.01%	-0.02%	0.55%	-1.90%	-0.19
10/27/2021	\$44.61	\$47.17	-5.58%	-0.76%	-1.65%	-2.19%	-3.39%	-0.33
10/28/2021	\$44.46	\$44.61	-0.34%	1.12%	1.90%	4.09%	-4.43%	-0.43
10/29/2021	\$43.13	\$44.46	-3.04%	0.10%	-0.34%	0.28%	-3.31%	-0.32
11/1/2021	\$46.11	\$43.13	6.68%	0.57%	1.59%	3.01%	3.67%	0.36
11/2/2021	\$58.07	\$46.11	23.06%	0.20%	0.78%	1.67%	21.39%	2.09 **
11/3/2021	\$56.66	\$58.07	-2.46%	0.73%	1.71%	3.49%	-5.95%	-0.58
11/4/2021	\$84.40	\$56.66	39.85%	0.29%	-1.78%	-1.10%	40.95%	3.96 ***
11/5/2021	\$90.91	\$84.40	7.43%	0.40%	-2.69%	-1.01%	8.44%	0.79
11/8/2021	\$89.49	\$90.91	-1.57%	0.20%	0.07%	1.22%	-2.80%	-0.26
11/9/2021	\$78.41	\$89.49	-13.22%	-0.29%	-1.08%	-0.51%	-12.70%	-1.20
11/10/2021	\$69.40	\$78.41	-12.21%	-1.05%	-1.33%	-2.21%	-10.00%	-0.94

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
11/11/2021	\$72.43	\$69.40	4.27%	0.24%	-0.21%	1.06%	3.22%	0.30
11/12/2021	\$68.80	\$72.43	-5.14%	0.71%	0.12%	2.20%	-7.35%	-0.69
11/15/2021	\$60.51	\$68.80	-12.84%	-0.03%	-0.45%	0.28%	-13.12%	-1.23
11/16/2021	\$61.69	\$60.51	1.93%	0.40%	0.08%	1.46%	0.47%	0.04
11/17/2021	\$47.07	\$61.69	-27.05%	-0.45%	-0.09%	-0.34%	-26.71%	-2.50 **
11/18/2021	\$48.44	\$47.07	2.87%	0.03%	-0.34%	0.35%	2.52%	0.23
11/19/2021	\$53.19	\$48.44	9.35%	-0.29%	0.52%	0.25%	9.11%	0.84
11/22/2021	\$52.77	\$53.19	-0.79%	-0.62%	-0.68%	-1.19%	0.39%	0.04
11/23/2021	\$52.57	\$52.77	-0.38%	-0.03%	-0.37%	0.29%	-0.67%	-0.06
11/24/2021	\$58.05	\$52.57	9.92%	0.32%	0.22%	1.46%	8.46%	0.78
11/26/2021	\$55.96	\$58.05	-3.67%	-2.26%	0.41%	-4.02%	0.35%	0.03
11/29/2021	\$54.62	\$55.96	-2.42%	1.00%	0.46%	3.13%	-5.56%	-0.51
11/30/2021	\$53.49	\$54.62	-2.09%	-1.93%	-0.89%	-4.09%	2.00%	0.18
12/1/2021	\$48.79	\$53.49	-9.20%	-1.52%	-2.26%	-4.10%	-5.10%	-0.47
12/2/2021	\$48.35	\$48.79	-0.91%	1.53%	0.42%	4.25%	-5.15%	-0.48
12/3/2021	\$45.85	\$48.35	-5.31%	-1.14%	-2.35%	-3.44%	-1.87%	-0.17
12/6/2021	\$43.96	\$45.85	-4.21%	1.17%	-1.56%	2.00%	-6.21%	-0.57
12/7/2021	\$47.65	\$43.96	8.06%	2.13%	3.81%	7.87%	0.19%	0.02
12/8/2021	\$49.98	\$47.65	4.77%	0.43%	1.20%	2.42%	2.36%	0.22
12/9/2021	\$45.86	\$49.98	-8.60%	-1.08%	-2.23%	-3.29%	-5.31%	-0.49
12/10/2021	\$44.10	\$45.86	-3.91%	0.61%	-1.27%	0.85%	-4.76%	-0.44
12/13/2021	\$44.85	\$44.10	1.69%	-0.99%	1.30%	-0.29%	1.98%	0.18
12/14/2021	\$46.94	\$44.85	4.55%	-0.77%	-0.16%	-1.09%	5.64%	0.52
12/15/2021	\$45.78	\$46.94	-2.50%	1.49%	2.22%	5.44%	-7.95%	-0.73
12/16/2021	\$43.59	\$45.78	-4.90%	-1.01%	-1.06%	-2.23%	-2.67%	-0.25
12/17/2021	\$43.27	\$43.59	-0.74%	-0.63%	2.58%	1.52%	-2.26%	-0.21
12/20/2021	\$36.77	\$43.27	-16.28%	-1.24%	-0.90%	-2.59%	-13.69%	-1.26
12/21/2021	\$43.67	\$36.77	17.20%	1.97%	0.66%	5.08%	12.12%	1.12
12/22/2021	\$43.58	\$43.67	-0.21%	0.95%	-0.37%	2.38%	-2.59%	-0.24
12/23/2021	\$44.19	\$43.58	1.39%	0.68%	0.89%	2.76%	-1.37%	-0.13
12/27/2021	\$46.84	\$44.19	5.82%	1.20%	-1.46%	2.03%	3.80%	0.35
12/28/2021	\$44.50	\$46.84	-5.12%	-0.24%	-0.74%	-0.50%	-4.62%	-0.42
12/29/2021	\$42.99	\$44.50	-3.45%	0.06%	0.41%	1.01%	-4.46%	-0.41
12/30/2021	\$43.77	\$42.99	1.80%	-0.10%	0.51%	0.72%	1.08%	0.10
12/31/2021	\$43.70	\$43.77	-0.16%	-0.24%	-0.87%	-0.57%	0.41%	0.04
1/3/2022	\$47.94	\$43.70	9.26%	0.61%	0.70%	2.49%	6.77%	0.62
1/4/2022	\$48.19	\$47.94	0.52%	-0.24%	-2.49%	-1.67%	2.19%	0.20
1/5/2022	\$49.49	\$48.19	2.66%	-2.21%	-3.94%	-7.16%	9.83%	0.90
1/6/2022	\$49.09	\$49.49	-0.81%	0.02%	-0.04%	0.66%	-1.47%	-0.13
1/7/2022	\$47.95	\$49.09	-2.35%	-0.42%	-0.94%	-0.88%	-1.47%	-0.14
1/10/2022	\$48.38	\$47.95	0.89%	-0.19%	1.04%	0.92%	-0.03%	0.00
1/11/2022	\$49.64	\$48.38	2.57%	1.08%	1.15%	3.82%	-1.24%	-0.11

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
1/12/2022	\$48.49	\$49.64	-2.34%	0.18%	-1.53%	0.08%	-2.42%	-0.22
1/13/2022	\$45.69	\$48.49	-5.95%	-1.45%	-2.29%	-4.18%	-1.77%	-0.17
1/14/2022	\$45.88	\$45.69	0.42%	0.02%	0.92%	1.33%	-0.91%	-0.09
1/18/2022	\$41.48	\$45.88	-10.08%	-1.95%	-3.93%	-6.60%	-3.48%	-0.33
1/19/2022	\$41.17	\$41.48	-0.75%	-0.94%	-1.05%	-2.29%	1.54%	0.14
1/20/2022	\$37.41	\$41.17	-9.58%	-1.11%	-1.14%	-2.71%	-6.87%	-0.65
1/21/2022	\$36.33	\$37.41	-2.93%	-2.01%	-1.59%	-5.14%	2.21%	0.21
1/24/2022	\$39.54	\$36.33	8.47%	0.42%	0.84%	1.99%	6.48%	0.61
1/25/2022	\$40.02	\$39.54	1.21%	-1.25%	-1.42%	-3.32%	4.53%	0.43
1/26/2022	\$39.45	\$40.02	-1.43%	-0.36%	-1.17%	-1.26%	-0.17%	-0.02
1/27/2022	\$37.66	\$39.45	-4.64%	-0.81%	-1.82%	-2.89%	-1.75%	-0.17
1/28/2022	\$39.75	\$37.66	5.40%	2.22%	3.24%	7.95%	-2.55%	-0.24
1/31/2022	\$44.25	\$39.75	10.72%	2.22%	2.82%	7.66%	3.06%	0.29
2/1/2022	\$46.01	\$44.25	3.90%	0.85%	1.50%	3.33%	0.57%	0.05
2/2/2022	\$45.73	\$46.01	-0.61%	0.47%	-1.24%	-0.11%	-0.50%	-0.06
2/3/2022	\$45.08	\$45.73	-1.43%	-2.36%	-2.18%	-5.94%	4.51%	0.54
2/4/2022	\$47.81	\$45.08	5.88%	0.72%	0.44%	1.59%	4.29%	0.54
2/7/2022	\$47.04	\$47.81	-1.62%	-0.18%	1.01%	0.77%	-2.40%	-0.31
2/8/2022	\$47.12	\$47.04	0.17%	0.91%	0.09%	1.82%	-1.65%	-0.22
2/9/2022	\$49.22	\$47.12	4.36%	1.61%	2.49%	5.39%	-1.03%	-0.13
2/10/2022	\$53.05	\$49.22	7.49%	-1.64%	-2.43%	-5.14%	12.64%	1.66 *
2/11/2022	\$51.01	\$53.05	-3.92%	-1.78%	-0.96%	-3.77%	-0.15%	-0.02
2/14/2022	\$48.70	\$51.01	-4.63%	-0.41%	-1.81%	-2.19%	-2.44%	-0.32
2/15/2022	\$49.22	\$48.70	1.06%	1.75%	2.62%	5.65%	-4.59%	-0.60
2/16/2022	\$48.76	\$49.22	-0.94%	0.03%	-0.32%	-0.07%	-0.87%	-0.11
2/17/2022	\$44.97	\$48.76	-8.09%	-2.15%	-2.74%	-6.03%	-2.06%	-0.27
2/18/2022	\$45.29	\$44.97	0.71%	-0.83%	-1.21%	-2.42%	3.13%	0.41
2/22/2022	\$41.51	\$45.29	-8.72%	-1.13%	-0.48%	-2.23%	-6.49%	-0.85
2/23/2022	\$38.33	\$41.51	-7.97%	-1.82%	-2.09%	-4.97%	-3.00%	-0.39
2/24/2022	\$42.01	\$38.33	9.17%	1.60%	2.13%	4.87%	4.30%	0.56
2/25/2022	\$42.51	\$42.01	1.18%	2.19%	1.51%	5.53%	-4.35%	-0.57
2/28/2022	\$42.51	\$42.51	0.00%	-0.04%	-0.37%	-0.29%	0.29%	0.04
3/1/2022	\$40.17	\$42.51	-5.66%	-1.51%	-0.56%	-3.16%	-2.50%	-0.33
3/2/2022	\$40.62	\$40.17	1.11%	1.76%	0.78%	4.10%	-2.98%	-0.39
3/3/2022	\$37.11	\$40.62	-9.04%	-0.81%	-1.66%	-2.95%	-6.09%	-0.80
3/4/2022	\$37.31	\$37.11	0.54%	-1.02%	-1.33%	-3.05%	3.58%	0.47
3/7/2022	\$34.89	\$37.31	-6.71%	-2.96%	-1.08%	-6.42%	-0.29%	-0.04
3/8/2022	\$35.55	\$34.89	1.87%	-0.44%	0.30%	-0.44%	2.32%	0.30
3/9/2022	\$37.46	\$35.55	5.23%	2.59%	3.12%	7.93%	-2.70%	-0.36
3/10/2022	\$37.65	\$37.46	0.51%	-0.42%	-0.94%	-1.58%	2.08%	0.27
3/11/2022	\$35.91	\$37.65	-4.73%	-1.38%	-1.77%	-4.14%	-0.60%	-0.08
3/14/2022	\$32.60	\$35.91	-9.67%	-1.06%	-1.08%	-2.88%	-6.79%	-0.89

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
3/15/2022	\$34.85	\$32.60	6.67%	1.89%	1.31%	4.92%	1.75%	0.23
3/16/2022	\$37.19	\$34.85	6.50%	2.51%	3.62%	8.37%	-1.87%	-0.25
3/17/2022	\$39.13	\$37.19	5.08%	1.38%	2.18%	4.68%	0.41%	0.05
3/18/2022	\$39.08	\$39.13	-0.13%	1.22%	1.53%	3.74%	-3.86%	-0.51
3/21/2022	\$38.22	\$39.08	-2.23%	-0.17%	-1.37%	-1.55%	-0.68%	-0.09
3/22/2022	\$38.94	\$38.22	1.87%	1.17%	2.09%	4.16%	-2.29%	-0.30
3/23/2022	\$39.82	\$38.94	2.23%	-1.19%	-2.13%	-4.11%	6.35%	0.84
3/24/2022	\$40.83	\$39.82	2.50%	1.30%	1.36%	3.66%	-1.15%	-0.15
3/25/2022	\$40.17	\$40.83	-1.63%	0.31%	-1.63%	-0.80%	-0.83%	-0.11
3/28/2022	\$40.14	\$40.17	-0.07%	0.61%	0.49%	1.69%	-1.77%	-0.24
3/29/2022	\$39.98	\$40.14	-0.40%	1.46%	2.66%	5.14%	-5.54%	-0.74
3/30/2022	\$38.54	\$39.98	-3.67%	-0.77%	-1.30%	-2.44%	-1.23%	-0.16
3/31/2022	\$37.14	\$38.54	-3.70%	-1.46%	-0.34%	-2.97%	-0.73%	-0.10
4/1/2022	\$37.95	\$37.14	2.16%	0.45%	2.28%	2.81%	-0.66%	-0.09
4/4/2022	\$38.47	\$37.95	1.36%	0.83%	1.23%	2.72%	-1.36%	-0.18
4/5/2022	\$31.23	\$38.47	-20.85%	-1.49%	-1.67%	-4.13%	-16.72%	-2.23 **
4/6/2022	\$29.20	\$31.23	-6.72%	-1.13%	0.26%	-2.07%	-4.65%	-0.61
4/7/2022	\$28.05	\$29.20	-4.02%	0.25%	0.83%	1.20%	-5.22%	-0.69
4/8/2022	\$27.09	\$28.05	-3.48%	-0.32%	-0.29%	-0.88%	-2.60%	-0.34
4/11/2022	\$26.05	\$27.09	-3.91%	-1.45%	-2.17%	-4.61%	0.70%	0.09
4/12/2022	\$26.17	\$26.05	0.46%	-0.27%	-0.53%	-0.90%	1.36%	0.18
4/13/2022	\$26.94	\$26.17	2.90%	1.33%	2.64%	4.84%	-1.94%	-0.26
4/14/2022	\$26.25	\$26.94	-2.59%	-1.18%	-1.13%	-3.26%	0.67%	0.09
4/18/2022	\$25.31	\$26.25	-3.65%	-0.21%	-2.90%	-2.44%	-1.20%	-0.16
4/19/2022	\$22.46	\$25.31	-11.95%	1.62%	0.80%	4.17%	-16.11%	-2.14 **
4/20/2022	\$20.39	\$22.46	-9.67%	-0.09%	0.26%	0.09%	-9.75%	-1.28
4/21/2022	\$18.51	\$20.39	-9.67%	-1.70%	-2.36%	-5.16%	-4.51%	-0.59
4/22/2022	\$19.01	\$18.51	2.67%	-2.67%	-2.27%	-7.20%	9.86%	1.30
4/25/2022	\$20.61	\$19.01	8.08%	0.53%	1.41%	2.06%	6.03%	0.79
4/26/2022	\$21.55	\$20.61	4.46%	-2.87%	-3.70%	-8.30%	12.76%	1.67 *
4/27/2022	\$21.11	\$21.55	-2.06%	0.13%	-0.36%	-0.08%	-1.98%	-0.26
4/28/2022	\$20.90	\$21.11	-1.00%	2.27%	-0.27%	3.93%	-4.93%	-0.65
4/29/2022	\$20.87	\$20.90	-0.14%	-3.41%	-2.27%	-8.06%	7.92%	1.04
5/2/2022	\$20.80	\$20.87	-0.34%	0.59%	1.39%	2.12%	-2.46%	-0.32
5/3/2022	\$21.08	\$20.80	1.34%	0.51%	0.47%	1.21%	0.13%	0.02
5/4/2022	\$21.11	\$21.08	0.14%	2.76%	1.70%	6.00%	-5.86%	-0.77
5/5/2022	\$20.75	\$21.11	-1.72%	-3.70%	-4.12%	-9.52%	7.80%	1.02
5/6/2022	\$20.05	\$20.75	-3.43%	-0.84%	-3.91%	-4.64%	1.21%	0.16
5/9/2022	\$18.93	\$20.05	-5.75%	-3.61%	-5.05%	-9.73%	3.98%	0.52
5/10/2022	\$19.78	\$18.93	4.39%	0.13%	2.63%	2.32%	2.08%	0.27
5/11/2022	\$17.22	\$19.78	-13.86%	-1.73%	-3.68%	-5.54%	-8.32%	-1.09
5/12/2022	\$17.63	\$17.22	2.35%	0.15%	2.89%	2.65%	-0.29%	-0.04

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
5/13/2022	\$19.24	\$17.63	8.74%	2.66%	3.31%	6.74%	2.00%	0.26
5/16/2022	\$20.82	\$19.24	7.89%	-0.47%	0.57%	-0.26%	8.15%	1.06
5/17/2022	\$22.76	\$20.82	8.91%	2.03%	2.97%	5.50%	3.41%	0.44
5/18/2022	\$22.28	\$22.76	-2.13%	-3.84%	-2.92%	-8.34%	6.21%	0.81
5/19/2022	\$23.98	\$22.28	7.35%	-0.21%	1.24%	0.74%	6.61%	0.86
5/20/2022	\$25.15	\$23.98	4.76%	0.00%	0.80%	0.71%	4.06%	0.53
5/23/2022	\$27.23	\$25.15	7.95%	1.63%	0.59%	2.76%	5.19%	0.68
5/24/2022	\$25.06	\$27.23	-8.30%	-1.07%	-1.59%	-2.93%	-5.38%	-0.70
5/25/2022	\$26.64	\$25.06	6.11%	1.11%	0.51%	2.08%	4.04%	0.52
5/26/2022	\$25.50	\$26.64	-4.37%	1.96%	0.59%	3.40%	-7.77%	-1.01
5/27/2022	\$26.66	\$25.50	4.45%	2.42%	2.72%	5.78%	-1.33%	-0.17
5/31/2022	\$30.60	\$26.66	13.78%	-0.70%	-2.29%	-3.11%	16.90%	2.20 **
6/1/2022	\$26.82	\$30.60	-13.19%	-0.70%	-1.04%	-1.88%	-11.31%	-1.46
6/2/2022	\$27.56	\$26.82	2.72%	2.01%	0.34%	3.04%	-0.32%	-0.04
6/3/2022	\$29.06	\$27.56	5.30%	-1.55%	0.46%	-1.89%	7.19%	0.93
6/6/2022	\$27.93	\$29.06	-3.97%	0.29%	-1.65%	-1.15%	-2.81%	-0.36
6/7/2022	\$28.88	\$27.93	3.34%	0.98%	2.70%	3.64%	-0.30%	-0.04
6/8/2022	\$28.20	\$28.88	-2.38%	-1.05%	0.40%	-1.14%	-1.24%	-0.16
6/9/2022	\$25.87	\$28.20	-8.62%	-2.39%	-3.78%	-6.70%	-1.93%	-0.25
6/10/2022	\$27.49	\$25.87	6.07%	-2.86%	-3.03%	-6.69%	12.76%	1.64
6/13/2022	\$22.67	\$27.49	-19.28%	-4.15%	-4.09%	-8.90%	-10.38%	-1.34
6/14/2022	\$24.45	\$22.67	7.56%	-0.35%	0.26%	-0.32%	7.88%	1.01
6/15/2022	\$26.80	\$24.45	9.18%	1.49%	2.32%	4.07%	5.11%	0.66
6/16/2022	\$26.43	\$26.80	-1.39%	-3.48%	-2.23%	-6.81%	5.42%	0.70
6/17/2022	\$26.92	\$26.43	1.84%	0.40%	3.90%	4.40%	-2.56%	-0.33
6/21/2022	\$26.61	\$26.92	-1.16%	2.23%	2.27%	4.93%	-6.08%	-0.78
6/22/2022	\$29.27	\$26.61	9.53%	-0.22%	1.39%	0.95%	8.58%	1.11
6/23/2022	\$30.80	\$29.27	5.10%	0.91%	3.86%	4.90%	0.19%	0.03
6/24/2022	\$30.44	\$30.80	-1.18%	2.94%	1.70%	4.95%	-6.13%	-0.79
6/27/2022	\$30.85	\$30.44	1.34%	-0.21%	-0.22%	-0.63%	1.97%	0.25
6/28/2022	\$29.47	\$30.85	-4.58%	-1.89%	-2.39%	-4.67%	0.10%	0.01
6/29/2022	\$29.75	\$29.47	0.95%	-0.27%	0.75%	0.33%	0.61%	0.08
6/30/2022	\$28.12	\$29.75	-5.63%	-0.90%	-0.79%	-1.95%	-3.68%	-0.48
7/1/2022	\$26.51	\$28.12	-5.90%	1.09%	2.15%	3.25%	-9.15%	-1.18
7/5/2022	\$26.49	\$26.51	-0.08%	0.20%	2.16%	2.17%	-2.25%	-0.29
7/6/2022	\$24.43	\$26.49	-8.10%	0.07%	0.24%	0.06%	-8.16%	-1.05
7/7/2022	\$24.91	\$24.43	1.95%	1.68%	2.38%	3.92%	-1.97%	-0.25
7/8/2022	\$24.28	\$24.91	-2.56%	-0.08%	0.50%	0.09%	-2.65%	-0.34
7/11/2022	\$23.34	\$24.28	-3.95%	-1.33%	-1.95%	-3.79%	-0.16%	-0.02
7/12/2022	\$23.23	\$23.34	-0.47%	-0.81%	-0.17%	-1.44%	0.97%	0.13
7/13/2022	\$23.40	\$23.23	0.73%	-0.34%	0.03%	-0.72%	1.45%	0.19
7/14/2022	\$23.27	\$23.40	-0.56%	-0.56%	-1.68%	-2.69%	2.13%	0.28

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
7/15/2022	\$23.91	\$23.27	2.71%	1.84%	1.80%	3.55%	-0.84%	-0.11
7/18/2022	\$23.57	\$23.91	-1.43%	-0.56%	-2.36%	-3.27%	1.84%	0.24
7/19/2022	\$24.36	\$23.57	3.30%	2.70%	2.79%	5.54%	-2.24%	-0.29
7/20/2022	\$24.21	\$24.36	-0.62%	0.78%	0.03%	0.63%	-1.24%	-0.16
7/21/2022	\$23.64	\$24.21	-2.38%	0.93%	0.18%	0.87%	-3.25%	-0.43
7/22/2022	\$22.93	\$23.64	-3.05%	-1.05%	-2.28%	-3.80%	0.75%	0.10
7/25/2022	\$21.69	\$22.93	-5.56%	0.20%	0.33%	0.07%	-5.62%	-0.76
7/26/2022	\$21.72	\$21.69	0.14%	-1.19%	0.06%	-1.62%	1.76%	0.24
7/27/2022	\$18.69	\$21.72	-15.02%	2.50%	1.03%	3.07%	-18.10%	-2.44 **
7/28/2022	\$16.84	\$18.69	-10.42%	1.24%	-0.58%	-0.19%	-10.24%	-1.37
7/29/2022	\$16.33	\$16.84	-3.08%	1.33%	-0.62%	-0.29%	-2.78%	-0.37
8/1/2022	\$17.95	\$16.33	9.46%	-0.22%	-1.72%	-2.74%	12.20%	1.63
8/2/2022	\$19.38	\$17.95	7.67%	-0.53%	0.66%	-0.04%	7.71%	1.08
8/3/2022	\$18.50	\$19.38	-4.65%	1.49%	3.87%	4.98%	-9.63%	-1.36
8/4/2022	\$17.16	\$18.50	-7.52%	-0.05%	2.35%	1.96%	-9.48%	-1.34
8/5/2022	\$17.50	\$17.16	1.96%	-0.04%	1.44%	0.82%	1.14%	0.16
8/8/2022	\$19.42	\$17.50	10.41%	0.12%	0.92%	0.35%	10.06%	1.42
8/9/2022	\$20.21	\$19.42	3.99%	-0.64%	-1.70%	-2.70%	6.69%	0.94
8/10/2022	\$19.82	\$20.21	-1.95%	2.24%	2.17%	3.25%	-5.20%	-0.73
8/11/2022	\$19.85	\$19.82	0.15%	-0.02%	-1.55%	-2.05%	2.20%	0.31
8/12/2022	\$20.42	\$19.85	2.83%	1.67%	1.18%	1.78%	1.05%	0.15
8/15/2022	\$20.19	\$20.42	-1.13%	0.28%	1.64%	1.07%	-2.20%	-0.31
8/16/2022	\$20.21	\$20.19	0.10%	0.19%	-1.35%	-1.75%	1.85%	0.26
8/17/2022	\$25.72	\$20.21	24.11%	-0.92%	-2.10%	-3.28%	27.39%	3.87 ***
8/18/2022	\$26.47	\$25.72	2.87%	0.27%	-1.20%	-1.37%	4.25%	0.59
8/19/2022	\$25.58	\$26.47	-3.42%	-1.47%	-0.78%	-2.30%	-1.12%	-0.15
8/22/2022	\$24.61	\$25.58	-3.87%	-2.05%	-1.57%	-3.44%	-0.43%	-0.06
8/23/2022	\$25.31	\$24.61	2.80%	-0.07%	0.05%	-0.52%	3.32%	0.46
8/24/2022	\$27.83	\$25.31	9.49%	0.39%	1.36%	0.89%	8.60%	1.19
8/25/2022	\$27.28	\$27.83	-2.00%	1.41%	0.14%	0.72%	-2.71%	-0.37
8/26/2022	\$29.39	\$27.28	7.45%	-3.24%	-3.41%	-5.82%	13.27%	1.94 *
8/29/2022	\$26.12	\$29.39	-11.80%	-0.65%	-0.65%	-1.25%	-10.54%	-1.54
8/30/2022	\$26.24	\$26.12	0.46%	-1.15%	-0.96%	-1.89%	2.35%	0.35
8/31/2022	\$25.73	\$26.24	-1.96%	-0.72%	0.21%	-0.55%	-1.41%	-0.21
9/1/2022	\$25.34	\$25.73	-1.53%	-0.11%	1.87%	1.22%	-2.74%	-0.41
9/2/2022	\$24.68	\$25.34	-2.64%	-0.86%	-1.61%	-2.17%	-0.46%	-0.07
9/6/2022	\$28.36	\$24.68	13.90%	-0.49%	-1.71%	-1.97%	15.87%	2.37 **
9/7/2022	\$29.32	\$28.36	3.33%	1.81%	2.89%	3.57%	-0.25%	-0.04
9/8/2022	\$29.61	\$29.32	0.98%	0.74%	3.19%	2.92%	-1.94%	-0.29
9/9/2022	\$32.80	\$29.61	10.23%	1.65%	0.93%	1.97%	8.26%	1.22
9/12/2022	\$33.38	\$32.80	1.75%	1.07%	0.20%	1.01%	0.74%	0.11
9/13/2022	\$30.87	\$33.38	-7.82%	-4.14%	-4.23%	-6.84%	-0.98%	-0.15

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
9/14/2022	\$32.92	\$30.87	6.43%	0.40%	0.90%	0.91%	5.52%	0.82
9/15/2022	\$31.58	\$32.92	-4.16%	-1.03%	0.26%	-0.76%	-3.39%	-0.51
9/16/2022	\$31.04	\$31.58	-1.72%	-0.96%	-0.98%	-1.60%	-0.12%	-0.02
9/19/2022	\$30.30	\$31.04	-2.41%	0.69%	-1.00%	-0.08%	-2.33%	-0.35
9/20/2022	\$38.91	\$30.30	25.01%	-1.23%	-0.73%	-1.76%	26.77%	4.01 ***
9/21/2022	\$37.64	\$38.91	-3.32%	-1.61%	-2.45%	-3.11%	-0.21%	-0.03
9/22/2022	\$51.06	\$37.64	30.49%	-1.15%	-0.52%	-1.41%	31.90%	4.64 ***
9/23/2022	\$41.87	\$51.06	-19.84%	-1.93%	-1.41%	-2.40%	-17.44%	-2.43 **
9/26/2022	\$45.19	\$41.87	7.63%	-1.15%	-1.67%	-2.01%	9.64%	1.35
9/27/2022	\$46.18	\$45.19	2.17%	-0.07%	1.50%	1.12%	1.04%	0.15
9/28/2022	\$43.84	\$46.18	-5.20%	2.14%	4.21%	4.71%	-9.91%	-1.39
9/29/2022	\$43.07	\$43.84	-1.77%	-2.12%	-1.79%	-2.72%	0.94%	0.13
9/30/2022	\$41.82	\$43.07	-2.95%	-1.24%	-0.23%	-1.00%	-1.94%	-0.27
10/3/2022	\$41.50	\$41.82	-0.77%	2.51%	1.43%	2.77%	-3.54%	-0.49
10/4/2022	\$41.72	\$41.50	0.53%	3.19%	2.93%	4.22%	-3.69%	-0.52
10/5/2022	\$40.97	\$41.72	-1.81%	-0.32%	0.01%	-0.19%	-1.63%	-0.23
10/6/2022	\$42.35	\$40.97	3.31%	-0.94%	-0.54%	-0.98%	4.29%	0.60
10/7/2022	\$39.93	\$42.35	-5.88%	-2.78%	-2.67%	-3.55%	-2.34%	-0.33
10/10/2022	\$36.32	\$39.93	-9.48%	-0.82%	-0.67%	-0.96%	-8.51%	-1.20
10/11/2022	\$35.64	\$36.32	-1.89%	-0.64%	0.69%	-0.01%	-1.88%	-0.26
10/12/2022	\$35.86	\$35.64	0.62%	-0.29%	0.49%	0.10%	0.51%	0.07
10/13/2022	\$37.21	\$35.86	3.70%	2.32%	1.93%	2.87%	0.82%	0.12
10/14/2022	\$36.46	\$37.21	-2.04%	-2.40%	-1.54%	-2.70%	0.66%	0.09
10/17/2022	\$35.92	\$36.46	-1.49%	2.64%	2.04%	3.21%	-4.71%	-0.66
10/18/2022	\$34.92	\$35.92	-2.82%	1.15%	0.06%	0.91%	-3.73%	-0.52
10/19/2022	\$33.28	\$34.92	-4.81%	-0.90%	-3.35%	-2.72%	-2.09%	-0.29
10/20/2022	\$33.94	\$33.28	1.96%	-0.75%	-0.57%	-0.87%	2.84%	0.40
10/21/2022	\$34.99	\$33.94	3.05%	2.19%	2.56%	3.21%	-0.17%	-0.02
10/24/2022	\$34.07	\$34.99	-2.66%	0.87%	0.86%	1.20%	-3.86%	-0.54
10/25/2022	\$34.31	\$34.07	0.70%	1.81%	1.68%	2.36%	-1.66%	-0.23
10/26/2022	\$35.55	\$34.31	3.55%	-0.46%	1.43%	0.60%	2.95%	0.41
10/27/2022	\$34.83	\$35.55	-2.05%	-0.41%	-1.45%	-1.20%	-0.85%	-0.12
10/28/2022	\$36.76	\$34.83	5.39%	2.11%	4.05%	4.06%	1.34%	0.19
10/31/2022	\$36.44	\$36.76	-0.87%	-0.60%	-0.86%	-0.91%	0.04%	0.01
11/1/2022	\$35.96	\$36.44	-1.33%	-0.22%	0.87%	0.49%	-1.81%	-0.25
11/2/2022	\$35.72	\$35.96	-0.67%	-2.54%	-1.45%	-2.63%	1.96%	0.28
11/3/2022	\$34.21	\$35.72	-4.32%	-0.89%	0.10%	-0.61%	-3.71%	-0.53
11/4/2022	\$35.27	\$34.21	3.05%	1.31%	0.16%	0.98%	2.07%	0.30
11/7/2022	\$34.11	\$35.27	-3.34%	0.81%	0.48%	0.58%	-3.93%	-0.61
11/8/2022	\$34.89	\$34.11	2.26%	0.53%	0.91%	0.79%	1.47%	0.23
11/9/2022	\$34.59	\$34.89	-0.86%	-2.14%	-1.24%	-2.13%	1.27%	0.20
11/10/2022	\$34.96	\$34.59	1.06%	5.38%	3.51%	4.95%	-3.89%	-0.61

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
11/11/2022	\$37.60	\$34.96	7.28%	1.05%	0.17%	0.31%	6.97%	1.10
11/14/2022	\$41.15	\$37.60	9.02%	-0.96%	0.27%	-0.20%	9.22%	1.45
11/15/2022	\$40.10	\$41.15	-2.58%	1.01%	0.37%	0.55%	-3.14%	-0.49
11/16/2022	\$34.87	\$40.10	-13.97%	-0.98%	-0.92%	-1.18%	-12.79%	-2.02 **
11/17/2022	\$34.56	\$34.87	-0.89%	-0.41%	-0.21%	-0.43%	-0.46%	-0.07
11/18/2022	\$33.33	\$34.56	-3.62%	0.42%	0.53%	0.62%	-4.24%	-0.69
11/21/2022	\$32.61	\$33.33	-2.18%	-0.46%	-0.63%	-0.74%	-1.44%	-0.23
11/22/2022	\$32.90	\$32.61	0.89%	1.32%	0.88%	1.14%	-0.26%	-0.04
11/23/2022	\$33.64	\$32.90	2.22%	0.59%	-0.41%	-0.27%	2.50%	0.41
11/25/2022	\$34.92	\$33.64	3.73%	0.04%	0.11%	0.07%	3.66%	0.60
11/28/2022	\$33.91	\$34.92	-2.93%	-1.58%	-0.67%	-1.15%	-1.79%	-0.29
11/29/2022	\$34.40	\$33.91	1.43%	-0.07%	-0.24%	-0.31%	1.74%	0.29
11/30/2022	\$34.83	\$34.40	1.24%	2.90%	3.19%	3.76%	-2.51%	-0.41
12/1/2022	\$34.14	\$34.83	-2.00%	0.02%	0.41%	0.34%	-2.34%	-0.38
12/2/2022	\$35.83	\$34.14	4.83%	-0.06%	1.21%	1.07%	3.76%	0.62
12/5/2022	\$33.74	\$35.83	-6.01%	-1.96%	-2.15%	-2.53%	-3.48%	-0.57
12/6/2022	\$33.62	\$33.74	-0.36%	-1.42%	-1.65%	-1.92%	1.56%	0.26
12/7/2022	\$36.91	\$33.62	9.34%	-0.19%	0.96%	0.82%	8.52%	1.39
12/8/2022	\$38.49	\$36.91	4.19%	0.73%	1.04%	1.16%	3.03%	0.49
12/9/2022	\$38.73	\$38.49	0.62%	-0.75%	-2.13%	-2.11%	2.73%	0.45
12/12/2022	\$42.15	\$38.73	8.46%	1.29%	0.91%	1.23%	7.23%	1.18
12/13/2022	\$44.16	\$42.15	4.66%	0.73%	1.49%	1.60%	3.05%	0.50
12/14/2022	\$44.12	\$44.16	-0.09%	-0.55%	0.66%	0.48%	-0.57%	-0.09
12/15/2022	\$39.57	\$44.12	-10.88%	-2.44%	-1.83%	-2.31%	-8.57%	-1.40
12/16/2022	\$38.70	\$39.57	-2.22%	-1.04%	-0.89%	-1.09%	-1.13%	-0.18
12/19/2022	\$38.10	\$38.70	-1.56%	-0.97%	-1.91%	-1.90%	0.33%	0.05
12/20/2022	\$37.73	\$38.10	-0.98%	0.19%	1.28%	1.26%	-2.24%	-0.37
12/21/2022	\$36.89	\$37.73	-2.25%	1.45%	1.26%	1.73%	-3.99%	-0.66
12/22/2022	\$33.25	\$36.89	-10.39%	-1.41%	0.00%	-0.23%	-10.16%	-1.70 *
12/23/2022	\$31.68	\$33.25	-4.84%	0.55%	-1.52%	-1.18%	-3.66%	-0.61
12/27/2022	\$28.67	\$31.68	-9.98%	-0.39%	-2.24%	-2.07%	-7.91%	-1.31
12/28/2022	\$27.82	\$28.67	-3.01%	-1.24%	-0.30%	-0.54%	-2.47%	-0.41
12/29/2022	\$28.93	\$27.82	3.91%	1.82%	2.10%	2.35%	1.57%	0.26
12/30/2022	\$29.54	\$28.93	2.09%	-0.25%	0.32%	0.26%	1.82%	0.30
1/3/2023	\$27.76	\$29.54	-6.21%	-0.39%	-0.93%	-0.99%	-5.22%	-0.87
1/4/2023	\$29.80	\$27.76	7.09%	0.95%	1.11%	1.24%	5.86%	0.97
1/5/2023	\$29.28	\$29.80	-1.76%	-1.10%	0.21%	-0.01%	-1.75%	-0.29
1/6/2023	\$28.57	\$29.28	-2.45%	2.20%	1.37%	1.67%	-4.12%	-0.69
1/9/2023	\$28.82	\$28.57	0.87%	0.11%	-2.33%	-2.61%	3.48%	0.58
1/10/2023	\$31.24	\$28.82	8.06%	0.73%	1.84%	1.93%	6.13%	1.02
1/11/2023	\$35.59	\$31.24	13.04%	1.25%	0.36%	0.47%	12.57%	2.09 **
1/12/2023	\$34.06	\$35.59	-4.39%	0.57%	1.18%	1.31%	-5.70%	-0.94



## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
1/13/2023	\$34.00	\$34.06	-0.18%	0.43%	0.76%	0.81%	-0.99%	-0.16
1/17/2023	\$34.58	\$34.00	1.69%	-0.11%	-0.06%	-0.13%	1.82%	0.30
1/18/2023	\$34.16	\$34.58	-1.22%	-1.43%	-0.69%	-1.00%	-0.22%	-0.04
1/19/2023	\$33.06	\$34.16	-3.27%	-0.75%	-1.03%	-1.21%	-2.07%	-0.34
1/20/2023	\$34.84	\$33.06	5.24%	1.79%	0.91%	1.26%	3.98%	0.66
1/23/2023	\$36.44	\$34.84	4.49%	1.17%	0.61%	0.88%	3.61%	0.60
1/24/2023	\$29.44	\$36.44	-21.33%	-0.11%	0.37%	0.38%	-21.71%	-3.59 ***
1/25/2023	\$27.49	\$29.44	-6.85%	0.03%	0.05%	0.12%	-6.97%	-1.15
1/26/2023	\$27.91	\$27.49	1.52%	1.03%	0.06%	0.31%	1.21%	0.20
1/27/2023	\$28.91	\$27.91	3.52%	0.35%	0.03%	0.11%	3.41%	0.56
1/30/2023	\$27.24	\$28.91	-5.95%	-1.31%	-1.56%	-1.78%	-4.17%	-0.69
1/31/2023	\$28.00	\$27.24	2.75%	1.54%	1.18%	1.51%	1.24%	0.21
2/1/2023	\$28.80	\$28.00	2.82%	1.11%	-0.18%	0.15%	2.67%	0.44
2/2/2023	\$31.52	\$28.80	9.02%	1.37%	0.00%	0.36%	8.66%	1.44
2/3/2023	\$30.92	\$31.52	-1.92%	-1.07%	-0.38%	-0.66%	-1.26%	-0.21
2/6/2023	\$29.59	\$30.92	-4.40%	-0.72%	-0.54%	-0.69%	-3.71%	-0.61
2/7/2023	\$29.88	\$29.59	0.98%	1.14%	0.36%	0.68%	0.29%	0.05
2/8/2023	\$29.51	\$29.88	-1.25%	-1.04%	-2.38%	-2.40%	1.15%	0.19
2/9/2023	\$28.51	\$29.51	-3.45%	-0.89%	-0.35%	-0.61%	-2.83%	-0.47
2/10/2023	\$28.08	\$28.51	-1.52%	0.15%	0.33%	0.30%	-1.82%	-0.30
2/13/2023	\$26.86	\$28.08	-4.44%	1.08%	1.03%	1.18%	-5.63%	-0.93
2/14/2023	\$25.99	\$26.86	-3.29%	0.09%	-0.12%	-0.18%	-3.11%	-0.52
2/15/2023	\$26.41	\$25.99	1.60%	0.44%	-0.07%	-0.04%	1.64%	0.27
2/16/2023	\$26.35	\$26.41	-0.23%	-1.28%	-1.40%	-1.72%	1.50%	0.25
2/17/2023	\$27.00	\$26.35	2.44%	-0.29%	1.28%	0.93%	1.51%	0.25
2/21/2023	\$25.21	\$27.00	-6.86%	-2.07%	-2.50%	-2.91%	-3.95%	-0.65
2/22/2023	\$25.24	\$25.21	0.12%	-0.06%	0.12%	0.01%	0.11%	0.02
2/23/2023	\$25.43	\$25.24	0.75%	0.49%	-0.55%	-0.40%	1.15%	0.19
2/24/2023	\$24.90	\$25.43	-2.11%	-1.02%	-1.95%	-2.06%	-0.05%	-0.01
2/27/2023	\$24.78	\$24.90	-0.48%	0.33%	0.44%	0.46%	-0.95%	-0.16
2/28/2023	\$24.70	\$24.78	-0.32%	-0.26%	0.22%	0.07%	-0.39%	-0.07
3/1/2023	\$25.02	\$24.70	1.29%	-0.32%	0.58%	0.36%	0.93%	0.16
3/2/2023	\$25.40	\$25.02	1.51%	0.65%	-0.18%	-0.02%	1.53%	0.26
3/3/2023	\$26.50	\$25.40	4.24%	1.54%	1.43%	1.62%	2.62%	0.44
3/6/2023	\$26.29	\$26.50	-0.80%	-0.18%	-1.06%	-0.97%	0.18%	0.03
3/7/2023	\$25.20	\$26.29	-4.23%	-1.47%	-1.22%	-1.41%	-2.82%	-0.47
3/8/2023	\$24.97	\$25.20	-0.92%	0.13%	-0.75%	-0.60%	-0.32%	-0.05
3/9/2023	\$24.79	\$24.97	-0.72%	-1.95%	-1.97%	-2.16%	1.43%	0.24
3/10/2023	\$24.90	\$24.79	0.44%	-1.66%	-1.45%	-1.62%	2.07%	0.35
3/13/2023	\$25.62	\$24.90	2.85%	-0.31%	2.70%	2.27%	0.58%	0.10
3/14/2023	\$26.01	\$25.62	1.51%	1.57%	1.13%	1.34%	0.17%	0.03
3/15/2023	\$26.05	\$26.01	0.15%	-0.93%	-0.44%	-0.56%	0.72%	0.12

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
3/16/2023	\$26.75	\$26.05	2.65%	1.62%	0.56%	0.87%	1.78%	0.30
3/17/2023	\$26.34	\$26.75	-1.54%	-1.21%	-1.67%	-1.63%	0.09%	0.01
3/20/2023	\$26.15	\$26.34	-0.72%	0.87%	1.12%	1.15%	-1.87%	-0.32
3/21/2023	\$25.71	\$26.15	-1.70%	1.38%	-0.15%	0.15%	-1.84%	-0.31
3/22/2023	\$23.53	\$25.71	-8.86%	-1.66%	-2.10%	-2.07%	-6.79%	-1.15
3/23/2023	\$23.95	\$23.53	1.77%	0.18%	1.25%	1.10%	0.67%	0.11
3/24/2023	\$24.17	\$23.95	0.91%	0.47%	1.14%	1.07%	-0.15%	-0.03
3/27/2023	\$24.14	\$24.17	-0.12%	0.32%	0.27%	0.27%	-0.39%	-0.07
3/28/2023	\$23.46	\$24.14	-2.86%	-0.08%	0.13%	0.07%	-2.92%	-0.49
3/29/2023	\$23.79	\$23.46	1.40%	1.37%	1.24%	1.29%	0.11%	0.02
3/30/2023	\$24.01	\$23.79	0.92%	0.55%	-0.64%	-0.50%	1.42%	0.24
3/31/2023	\$24.12	\$24.01	0.46%	1.45%	1.40%	1.49%	-1.03%	-0.17
4/3/2023	\$24.26	\$24.12	0.58%	0.31%	0.52%	0.49%	0.09%	0.01
4/4/2023	\$24.01	\$24.26	-1.04%	-0.66%	-0.75%	-0.78%	-0.25%	-0.04
4/5/2023	\$23.84	\$24.01	-0.71%	-0.41%	0.66%	0.52%	-1.23%	-0.21
4/6/2023	\$23.97	\$23.84	0.54%	0.31%	1.22%	1.12%	-0.58%	-0.10
4/10/2023	\$23.11	\$23.97	-3.65%	0.22%	-0.60%	-0.42%	-3.23%	-0.56
4/11/2023	\$23.40	\$23.11	1.25%	0.18%	0.15%	0.23%	1.02%	0.18
4/12/2023	\$22.90	\$23.40	-2.16%	-0.40%	-0.25%	-0.15%	-2.01%	-0.35
4/13/2023	\$23.62	\$22.90	3.10%	1.27%	2.13%	2.14%	0.95%	0.16
4/14/2023	\$23.32	\$23.62	-1.28%	-0.27%	-0.85%	-0.67%	-0.61%	-0.11
4/17/2023	\$24.69	\$23.32	5.71%	0.36%	0.95%	1.00%	4.71%	0.81
4/18/2023	\$24.56	\$24.69	-0.55%	0.07%	-0.50%	-0.32%	-0.23%	-0.04
4/19/2023	\$24.15	\$24.56	-1.66%	-0.05%	0.53%	0.62%	-2.28%	-0.39
4/20/2023	\$23.37	\$24.15	-3.28%	-0.58%	-0.81%	-0.64%	-2.64%	-0.46
4/21/2023	\$23.50	\$23.37	0.55%	0.06%	1.16%	1.20%	-0.65%	-0.11
4/24/2023	\$22.83	\$23.50	-2.89%	0.04%	-0.52%	-0.24%	-2.66%	-0.47
4/25/2023	\$21.90	\$22.83	-4.16%	-1.68%	-1.22%	-1.04%	-3.12%	-0.55
4/26/2023	\$21.59	\$21.90	-1.43%	-0.41%	-1.44%	-1.10%	-0.33%	-0.06
4/27/2023	\$22.67	\$21.59	4.88%	1.72%	0.40%	0.83%	4.05%	0.72
4/28/2023	\$23.22	\$22.67	2.40%	0.80%	0.73%	0.96%	1.43%	0.25
5/1/2023	\$23.34	\$23.22	0.52%	-0.07%	0.95%	0.97%	-0.45%	-0.08
5/2/2023	\$22.18	\$23.34	-5.10%	-1.23%	-1.43%	-1.23%	-3.87%	-0.69
5/3/2023	\$22.31	\$22.18	0.58%	-0.52%	0.70%	0.62%	-0.04%	-0.01
5/4/2023	\$22.34	\$22.31	0.13%	-0.69%	-0.12%	-0.06%	0.20%	0.03
5/5/2023	\$22.32	\$22.34	-0.09%	1.86%	1.65%	2.02%	-2.11%	-0.37
5/8/2023	\$23.12	\$22.32	3.52%	0.08%	-0.79%	-0.39%	3.91%	0.69
5/9/2023	\$26.58	\$23.12	13.95%	-0.39%	0.15%	0.22%	13.73%	2.43 **
5/10/2023	\$27.02	\$26.58	1.64%	0.41%	0.40%	0.65%	0.99%	0.17
5/11/2023	\$27.88	\$27.02	3.13%	-0.26%	-0.76%	-0.44%	3.57%	0.63
5/12/2023	\$26.47	\$27.88	-5.19%	-0.19%	-0.33%	-0.07%	-5.12%	-0.90
5/15/2023	\$26.51	\$26.47	0.15%	0.50%	1.34%	1.35%	-1.20%	-0.21

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
5/16/2023	\$25.28	\$26.51	-4.75%	-0.81%	-2.47%	-1.67%	-3.08%	-0.55
5/17/2023	\$25.29	\$25.28	0.04%	1.23%	0.33%	0.85%	-0.81%	-0.14
5/18/2023	\$24.63	\$25.29	-2.64%	0.84%	-0.42%	0.22%	-2.87%	-0.51
5/19/2023	\$24.14	\$24.63	-2.01%	-0.19%	0.86%	0.65%	-2.66%	-0.48
5/22/2023	\$25.22	\$24.14	4.38%	0.19%	0.63%	0.61%	3.76%	0.67
5/23/2023	\$25.31	\$25.22	0.36%	-1.05%	0.04%	-0.22%	0.58%	0.10
5/24/2023	\$25.25	\$25.31	-0.24%	-0.80%	-1.31%	-0.94%	0.70%	0.13
5/25/2023	\$24.20	\$25.25	-4.25%	0.49%	-2.07%	-0.98%	-3.27%	-0.59
5/26/2023	\$23.57	\$24.20	-2.64%	1.25%	0.12%	0.58%	-3.22%	-0.58
5/30/2023	\$22.80	\$23.57	-3.32%	-0.02%	-0.65%	-0.34%	-2.98%	-0.54
5/31/2023	\$22.71	\$22.80	-0.40%	-0.57%	0.55%	0.26%	-0.66%	-0.12
6/1/2023	\$22.52	\$22.71	-0.84%	1.01%	0.24%	0.53%	-1.37%	-0.25
6/2/2023	\$23.23	\$22.52	3.10%	1.61%	1.74%	1.64%	1.47%	0.27
6/5/2023	\$22.87	\$23.23	-1.56%	-0.28%	0.40%	0.28%	-1.84%	-0.34
6/6/2023	\$23.31	\$22.87	1.91%	0.52%	-0.16%	0.05%	1.85%	0.35
6/7/2023	\$24.01	\$23.31	2.96%	-0.20%	-0.33%	-0.23%	3.19%	0.60
6/8/2023	\$24.48	\$24.01	1.94%	0.52%	0.47%	0.52%	1.42%	0.26
6/9/2023	\$24.31	\$24.48	-0.70%	0.01%	-0.59%	-0.30%	-0.40%	-0.07
6/12/2023	\$24.67	\$24.31	1.47%	0.85%	0.83%	0.85%	0.62%	0.11
6/13/2023	\$25.59	\$24.67	3.66%	0.75%	1.19%	1.04%	2.62%	0.49
6/14/2023	\$25.33	\$25.59	-1.02%	0.01%	-0.78%	-0.42%	-0.60%	-0.11
6/15/2023	\$25.07	\$25.33	-1.03%	1.16%	1.22%	1.11%	-2.14%	-0.41
6/16/2023	\$24.60	\$25.07	-1.89%	-0.38%	-0.37%	-0.18%	-1.71%	-0.33
6/20/2023	\$24.74	\$24.60	0.57%	-0.54%	-0.51%	-0.31%	0.88%	0.17
6/21/2023	\$25.21	\$24.74	1.88%	-0.47%	-0.43%	-0.26%	2.14%	0.41
6/22/2023	\$25.46	\$25.21	0.99%	0.18%	0.09%	0.18%	0.81%	0.16
6/23/2023	\$24.83	\$25.46	-2.51%	-0.85%	-1.25%	-0.78%	-1.73%	-0.33
6/26/2023	\$23.61	\$24.83	-5.04%	-0.27%	-1.27%	-0.65%	-4.39%	-0.85
6/27/2023	\$24.00	\$23.61	1.64%	1.16%	-1.14%	-0.16%	1.80%	0.35
6/28/2023	\$23.77	\$24.00	-0.96%	0.05%	0.51%	0.30%	-1.26%	-0.25
6/29/2023	\$23.66	\$23.77	-0.46%	0.47%	-0.54%	-0.03%	-0.43%	-0.08
6/30/2023	\$24.52	\$23.66	3.57%	1.10%	0.85%	0.80%	2.77%	0.54
7/3/2023	\$25.32	\$24.52	3.21%	0.21%	-0.50%	-0.08%	3.29%	0.64
7/5/2023	\$22.04	\$25.32	-13.87%	-0.33%	0.30%	0.10%	-13.98%	-2.72 ***
7/6/2023	\$22.91	\$22.04	3.87%	-0.97%	-1.35%	-0.84%	4.71%	0.92
7/7/2023	\$22.15	\$22.91	-3.37%	0.00%	-0.85%	-0.25%	-3.13%	-0.61
7/10/2023	\$21.87	\$22.15	-1.27%	0.41%	1.81%	1.18%	-2.45%	-0.48
7/11/2023	\$22.10	\$21.87	1.05%	0.77%	0.10%	0.45%	0.59%	0.12
7/12/2023	\$22.12	\$22.10	0.09%	0.80%	0.87%	0.84%	-0.75%	-0.15
7/13/2023	\$21.92	\$22.12	-0.91%	0.93%	0.41%	0.66%	-1.57%	-0.31
7/14/2023	\$21.63	\$21.92	-1.33%	-0.30%	-0.19%	0.00%	-1.34%	-0.26
7/17/2023	\$21.92	\$21.63	1.33%	0.45%	0.67%	0.62%	0.71%	0.14

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
7/18/2023	\$21.29	\$21.92	-2.92%	0.73%	0.33%	0.55%	-3.47%	-0.68
7/19/2023	\$21.42	\$21.29	0.61%	0.26%	0.39%	0.41%	0.19%	0.04
7/20/2023	\$21.37	\$21.42	-0.23%	-0.72%	-0.30%	-0.20%	-0.04%	-0.01
7/21/2023	\$21.60	\$21.37	1.07%	0.01%	0.68%	0.47%	0.60%	0.12
7/24/2023	\$20.63	\$21.60	-4.59%	0.33%	-1.49%	-0.44%	-4.16%	-0.81
7/25/2023	\$20.30	\$20.63	-1.61%	0.23%	-0.24%	0.10%	-1.71%	-0.33
7/26/2023	\$20.04	\$20.30	-1.29%	0.08%	-0.29%	0.04%	-1.33%	-0.26
7/27/2023	\$20.41	\$20.04	1.83%	-0.75%	-0.66%	-0.35%	2.18%	0.43
7/28/2023	\$20.98	\$20.41	2.75%	1.06%	1.69%	1.29%	1.46%	0.29
7/31/2023	\$21.98	\$20.98	4.66%	0.32%	-0.09%	0.35%	4.30%	0.86
8/1/2023	\$21.84	\$21.98	-0.64%	-0.37%	-0.90%	-0.19%	-0.45%	-0.09
8/2/2023	\$20.98	\$21.84	-4.02%	-1.45%	-0.69%	-0.77%	-3.25%	-0.66
8/3/2023	\$20.84	\$20.98	-0.67%	-0.24%	-0.28%	0.03%	-0.70%	-0.14
8/4/2023	\$20.18	\$20.84	-3.24%	-0.42%	0.42%	0.09%	-3.34%	-0.68
8/7/2023	\$18.95	\$20.18	-6.26%	0.75%	-0.56%	0.47%	-6.74%	-1.38
8/8/2023	\$18.78	\$18.95	-0.90%	-0.48%	0.65%	0.40%	-1.30%	-0.27
8/9/2023	\$18.66	\$18.78	-0.64%	-0.65%	0.36%	0.14%	-0.78%	-0.16
8/10/2023	\$18.21	\$18.66	-2.44%	0.01%	0.28%	0.34%	-2.78%	-0.58
8/11/2023	\$17.92	\$18.21	-1.61%	-0.09%	0.39%	0.32%	-1.93%	-0.40
8/14/2023	\$18.29	\$17.92	2.04%	0.40%	-0.22%	0.27%	1.77%	0.37
8/15/2023	\$17.55	\$18.29	-4.13%	-1.19%	-0.27%	-0.58%	-3.55%	-0.74
8/16/2023	\$17.09	\$17.55	-2.66%	-0.79%	-1.21%	-0.88%	-1.77%	-0.37
8/17/2023	\$17.39	\$17.09	1.74%	-0.84%	-0.44%	-0.52%	2.26%	0.47
8/18/2023	\$17.08	\$17.39	-1.80%	0.06%	0.04%	0.23%	-2.02%	-0.42
8/21/2023	\$16.78	\$17.08	-1.77%	0.55%	1.52%	1.41%	-3.18%	-0.71
8/22/2023	\$17.23	\$16.78	2.65%	-0.19%	0.05%	-0.02%	2.66%	0.59
8/23/2023	\$17.42	\$17.23	1.10%	1.10%	0.45%	0.83%	0.27%	0.06
8/24/2023	\$18.40	\$17.42	5.47%	-1.26%	-1.00%	-1.18%	6.66%	1.48
8/25/2023	\$18.26	\$18.40	-0.76%	0.70%	0.59%	0.78%	-1.54%	-0.34
8/28/2023	\$19.51	\$18.26	6.62%	0.71%	0.45%	0.63%	5.99%	1.33
8/29/2023	\$21.24	\$19.51	8.50%	1.31%	0.80%	1.18%	7.31%	1.62
8/30/2023	\$21.70	\$21.24	2.14%	0.38%	0.18%	0.38%	1.76%	0.39
8/31/2023	\$20.97	\$21.70	-3.42%	-0.11%	-0.86%	-0.57%	-2.85%	-0.65
9/1/2023	\$21.04	\$20.97	0.33%	0.28%	0.94%	0.91%	-0.57%	-0.13
9/5/2023	\$21.02	\$21.04	-0.10%	-0.61%	-1.41%	-1.26%	1.17%	0.26
9/6/2023	\$20.57	\$21.02	-2.16%	-0.64%	-0.55%	-0.63%	-1.54%	-0.35
9/7/2023	\$21.06	\$20.57	2.35%	-0.38%	-0.14%	-0.20%	2.55%	0.58
9/8/2023	\$21.11	\$21.06	0.24%	0.10%	0.37%	0.42%	-0.18%	-0.04
9/11/2023	\$20.89	\$21.11	-1.05%	0.65%	0.45%	0.71%	-1.76%	-0.41
9/12/2023	\$19.36	\$20.89	-7.61%	-0.48%	0.00%	-0.14%	-7.47%	-1.74 *
9/13/2023	\$19.53	\$19.36	0.87%	0.00%	-0.59%	-0.55%	1.43%	0.33
9/14/2023	\$19.68	\$19.53	0.77%	0.90%	0.42%	0.69%	0.07%	0.02

## Exhibit-17

## Cassava Common Stock Collective Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Stock Closing Price	Cassava Prior Day Closing Price	Cassava Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t-statistic
9/15/2023	\$19.41	\$19.68	-1.38%	-1.06%	-0.82%	-1.09%	-0.29%	-0.07
9/18/2023	\$18.38	\$19.41	-5.45%	-0.04%	-1.08%	-0.99%	-4.46%	-1.04
9/19/2023	\$18.20	\$18.38	-0.98%	-0.26%	0.36%	0.23%	-1.22%	-0.28
9/20/2023	\$18.49	\$18.20	1.58%	-0.83%	-0.71%	-0.93%	2.51%	0.59
9/21/2023	\$17.68	\$18.49	-4.48%	-1.70%	-1.02%	-1.45%	-3.03%	-0.71
9/22/2023	\$17.54	\$17.68	-0.80%	-0.19%	-0.34%	-0.53%	-0.26%	-0.07
9/25/2023	\$17.81	\$17.54	1.53%	0.34%	-0.30%	-0.24%	1.77%	0.45
9/26/2023	\$17.07	\$17.81	-4.24%	-1.42%	0.72%	-0.69%	-3.55%	-1.06
9/27/2023	\$16.95	\$17.07	-0.71%	0.11%	0.35%	0.04%	-0.75%	-0.22
9/28/2023	\$16.86	\$16.95	-0.53%	0.66%	-0.11%	0.06%	-0.59%	-0.18
9/29/2023	\$16.64	\$16.86	-1.31%	-0.26%	-0.47%	-0.91%	-0.40%	-0.12
10/2/2023	\$16.80	\$16.64	0.96%	-0.35%	-1.41%	-1.89%	2.84%	0.89
10/3/2023	\$17.54	\$16.80	4.31%	-1.45%	-0.93%	-2.21%	6.52%	2.03 **
10/4/2023	\$18.84	\$17.54	7.15%	0.70%	0.47%	0.63%	6.52%	2.01 **
10/5/2023	\$18.76	\$18.84	-0.43%	-0.07%	1.49%	1.09%	-1.51%	-0.46
10/6/2023	\$19.06	\$18.76	1.59%	1.14%	0.56%	1.17%	0.42%	0.13
10/9/2023	\$18.74	\$19.06	-1.69%	0.61%	-0.52%	-0.24%	-1.46%	-0.45
10/10/2023	\$19.35	\$18.74	3.20%	0.64%	0.77%	0.97%	2.23%	0.69
10/11/2023	\$18.43	\$19.35	-4.87%	0.38%	0.31%	0.36%	-5.23%	-1.61
10/12/2023	\$17.54	\$18.43	-4.95%	-0.85%	-1.58%	-2.32%	-2.63%	-0.82

**Sources:** Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*\*" indicates statistical significance at the 99% confidence level.

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
9/14/2020	\$7.75	\$3.32	84.77%	1.53%	5.23%	-0.49%	85.26%	7.14 ***
9/15/2020	\$7.02	\$7.75	-9.89%	0.54%	1.10%	0.53%	-10.43%	-0.87
9/16/2020	\$7.04	\$7.02	0.28%	-0.32%	0.04%	-0.18%	0.46%	0.04
9/17/2020	\$7.09	\$7.04	0.71%	-0.79%	-0.39%	-0.64%	1.35%	0.11
9/18/2020	\$10.07	\$7.09	35.09%	-0.89%	0.40%	-1.29%	36.37%	3.04 ***
9/21/2020	\$9.82	\$10.07	-2.51%	-1.26%	-2.50%	0.00%	-2.52%	-0.21
9/22/2020	\$10.45	\$9.82	6.22%	0.93%	0.83%	1.37%	4.85%	0.40
9/23/2020	\$9.76	\$10.45	-6.83%	-2.43%	-1.39%	-2.18%	-4.65%	-0.38
9/24/2020	\$9.71	\$9.76	-0.51%	0.20%	-0.99%	1.26%	-1.77%	-0.15
9/25/2020	\$11.47	\$9.71	16.66%	1.56%	2.16%	1.59%	15.07%	1.24
9/28/2020	\$11.16	\$11.47	-2.74%	1.64%	0.69%	2.49%	-5.23%	-0.43
9/29/2020	\$11.41	\$11.16	2.22%	-0.40%	0.16%	-0.08%	2.30%	0.19
9/30/2020	\$11.51	\$11.41	0.87%	0.69%	0.55%	1.24%	-0.37%	-0.03
10/1/2020	\$11.40	\$11.51	-0.96%	0.78%	0.94%	1.19%	-2.15%	-0.18
10/2/2020	\$10.66	\$11.40	-6.71%	-0.78%	-2.21%	0.42%	-7.13%	-0.58
10/5/2020	\$11.57	\$10.66	8.19%	1.81%	4.30%	1.24%	6.95%	0.57
10/6/2020	\$11.35	\$11.57	-1.92%	-1.20%	-1.18%	-0.64%	-1.28%	-0.10
10/7/2020	\$12.13	\$11.35	6.65%	1.69%	2.18%	1.98%	4.67%	0.38
10/8/2020	\$12.25	\$12.13	0.98%	0.85%	0.26%	1.54%	-0.55%	-0.04
10/9/2020	\$11.92	\$12.25	-2.73%	0.85%	0.79%	1.39%	-4.12%	-0.34
10/12/2020	\$11.43	\$11.92	-4.20%	1.34%	0.73%	2.01%	-6.21%	-0.51
10/13/2020	\$11.22	\$11.43	-1.85%	-0.50%	0.49%	-0.29%	-1.57%	-0.13
10/14/2020	\$10.99	\$11.22	-2.07%	-0.60%	-1.28%	0.12%	-2.19%	-0.18
10/15/2020	\$10.89	\$10.99	-0.91%	-0.08%	-2.35%	1.10%	-2.02%	-0.16
10/16/2020	\$10.48	\$10.89	-3.84%	-0.07%	0.49%	0.25%	-4.09%	-0.33
10/19/2020	\$9.84	\$10.48	-6.30%	-1.43%	-1.82%	-0.79%	-5.51%	-0.45
10/20/2020	\$9.40	\$9.84	-4.57%	0.38%	-0.59%	1.09%	-5.67%	-0.46
10/21/2020	\$8.91	\$9.40	-5.35%	-0.34%	-1.61%	0.42%	-5.78%	-0.47
10/22/2020	\$8.83	\$8.91	-0.90%	0.61%	1.33%	0.92%	-1.82%	-0.15
10/23/2020	\$9.32	\$8.83	5.40%	0.38%	0.26%	0.81%	4.59%	0.37
10/26/2020	\$9.07	\$9.32	-2.72%	-1.83%	-0.92%	-1.58%	-1.14%	-0.09
10/27/2020	\$9.11	\$9.07	0.44%	-0.30%	0.52%	-0.06%	0.50%	0.04
10/28/2020	\$8.67	\$9.11	-4.95%	-3.34%	-2.57%	-3.06%	-1.89%	-0.15
10/29/2020	\$8.73	\$8.67	0.69%	1.04%	0.62%	1.51%	-0.82%	-0.07
10/30/2020	\$8.21	\$8.73	-6.14%	-1.32%	-2.16%	-0.78%	-5.36%	-0.44
11/2/2020	\$8.93	\$8.21	8.41%	1.20%	0.10%	1.77%	6.63%	0.54
11/3/2020	\$9.19	\$8.93	2.87%	1.86%	1.67%	2.33%	0.54%	0.04
11/4/2020	\$11.54	\$9.19	22.77%	1.94%	6.02%	1.60%	21.17%	1.73 *
11/5/2020	\$10.51	\$11.54	-9.35%	2.09%	-0.11%	2.95%	-12.30%	-1.00
11/6/2020	\$10.70	\$10.51	1.79%	0.00%	-1.57%	0.53%	1.26%	0.10
11/9/2020	\$10.16	\$10.70	-5.18%	1.06%	-0.73%	1.65%	-6.83%	-0.56
11/10/2020	\$9.98	\$10.16	-1.79%	-0.06%	0.19%	0.28%	-2.07%	-0.17
11/11/2020	\$10.86	\$9.98	8.45%	0.80%	1.18%	1.13%	7.32%	0.59
11/12/2020	\$11.18	\$10.86	2.90%	-0.97%	-0.01%	-0.67%	3.57%	0.29
11/13/2020	\$8.37	\$11.18	-28.95%	1.32%	1.25%	1.75%	-30.69%	-2.49 **

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
11/16/2020	\$8.13	\$8.37	-2.91%	1.23%	0.00%	1.72%	-4.63%	-0.38
11/17/2020	\$7.95	\$8.13	-2.24%	-0.15%	-0.44%	0.25%	-2.48%	-0.20
11/18/2020	\$7.48	\$7.95	-6.09%	-0.91%	-1.96%	-0.50%	-5.59%	-0.45
11/19/2020	\$7.47	\$7.48	-0.13%	0.58%	0.14%	0.96%	-1.09%	-0.09
11/20/2020	\$7.33	\$7.47	-1.89%	-0.43%	0.62%	-0.12%	-1.77%	-0.14
11/23/2020	\$7.10	\$7.33	-3.19%	0.79%	0.24%	1.17%	-4.36%	-0.35
11/24/2020	\$7.25	\$7.10	2.09%	1.50%	-0.66%	1.91%	0.18%	0.01
11/25/2020	\$7.70	\$7.25	6.02%	0.02%	0.54%	0.27%	5.75%	0.47
11/27/2020	\$7.76	\$7.70	0.78%	0.40%	3.06%	0.56%	0.22%	0.02
11/30/2020	\$7.72	\$7.76	-0.52%	-0.58%	1.09%	-0.37%	-0.15%	-0.01
12/1/2020	\$7.53	\$7.72	-2.49%	0.96%	0.37%	1.30%	-3.79%	-0.31
12/2/2020	\$7.31	\$7.53	-2.97%	0.12%	-0.28%	0.36%	-3.33%	-0.27
12/3/2020	\$7.49	\$7.31	2.43%	0.23%	0.89%	0.41%	2.02%	0.16
12/4/2020	\$7.73	\$7.49	3.15%	1.04%	1.00%	1.27%	1.88%	0.15
12/7/2020	\$7.56	\$7.73	-2.22%	-0.02%	-0.04%	0.18%	-2.41%	-0.20
12/8/2020	\$7.91	\$7.56	4.53%	0.43%	1.70%	0.60%	3.93%	0.32
12/9/2020	\$7.87	\$7.91	-0.51%	-0.96%	-1.78%	-0.72%	0.22%	0.02
12/10/2020	\$7.70	\$7.87	-2.18%	0.26%	1.47%	0.50%	-2.68%	-0.22
12/11/2020	\$8.12	\$7.70	5.31%	-0.23%	0.21%	-0.01%	5.32%	0.43
12/14/2020	\$7.76	\$8.12	-4.53%	-0.33%	2.38%	-0.18%	-4.36%	-0.35
12/15/2020	\$8.05	\$7.76	3.67%	1.30%	0.08%	1.59%	2.08%	0.17
12/16/2020	\$7.93	\$8.05	-1.50%	0.14%	-0.63%	0.41%	-1.91%	-0.15
12/17/2020	\$8.41	\$7.93	5.88%	0.79%	1.38%	1.00%	4.88%	0.40
12/18/2020	\$8.04	\$8.41	-4.50%	-0.21%	0.40%	0.02%	-4.52%	-0.37
12/21/2020	\$7.83	\$8.04	-2.65%	-0.29%	0.47%	-0.15%	-2.50%	-0.20
12/22/2020	\$7.57	\$7.83	-3.38%	0.06%	0.27%	0.17%	-3.55%	-0.29
12/23/2020	\$7.64	\$7.57	0.92%	0.14%	0.30%	0.04%	0.88%	0.07
12/24/2020	\$7.46	\$7.64	-2.38%	0.23%	-0.78%	0.29%	-2.67%	-0.23
12/28/2020	\$7.17	\$7.46	-3.96%	0.38%	-1.55%	0.74%	-4.71%	-0.40
12/29/2020	\$6.79	\$7.17	-5.45%	-0.37%	-1.19%	-0.44%	-5.01%	-0.43
12/30/2020	\$7.01	\$6.79	3.19%	0.33%	0.46%	0.00%	3.19%	0.27
12/31/2020	\$6.82	\$7.01	-2.75%	0.36%	-0.67%	0.26%	-3.01%	-0.26
1/4/2021	\$7.09	\$6.82	3.88%	-1.32%	-0.59%	-1.72%	5.61%	0.49
1/5/2021	\$7.68	\$7.09	7.99%	0.90%	0.15%	0.40%	7.59%	0.68
1/6/2021	\$8.18	\$7.68	6.31%	0.80%	1.30%	0.48%	5.82%	0.52
1/7/2021	\$8.42	\$8.18	2.89%	1.61%	2.88%	1.50%	1.39%	0.12
1/8/2021	\$8.38	\$8.42	-0.48%	0.47%	0.61%	0.13%	-0.61%	-0.05
1/11/2021	\$8.29	\$8.38	-1.08%	-0.57%	-0.14%	-0.91%	-0.17%	-0.02
1/12/2021	\$8.18	\$8.29	-1.34%	0.42%	0.24%	0.07%	-1.41%	-0.13
1/13/2021	\$11.45	\$8.18	33.63%	0.09%	-0.22%	-0.20%	33.83%	3.04 ***
1/14/2021	\$10.48	\$11.45	-8.85%	0.00%	2.41%	-0.35%	-8.50%	-0.75
1/15/2021	\$10.57	\$10.48	0.86%	-0.86%	-0.08%	-1.26%	2.11%	0.19
1/19/2021	\$12.97	\$10.57	20.46%	0.85%	1.89%	0.47%	19.99%	1.77 *
1/20/2021	\$12.24	\$12.97	-5.79%	1.20%	0.25%	1.16%	-6.95%	-0.61
1/21/2021	\$12.08	\$12.24	-1.32%	-0.09%	-1.05%	-0.22%	-1.09%	-0.10

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
1/22/2021	\$12.87	\$12.08	6.33%	-0.15%	0.91%	-0.41%	6.75%	0.59
1/25/2021	\$15.68	\$12.87	19.75%	0.24%	1.71%	0.03%	19.72%	1.73 *
1/26/2021	\$19.43	\$15.68	21.44%	-0.29%	-1.81%	-0.37%	21.81%	1.91 *
1/27/2021	\$19.75	\$19.43	1.63%	-2.51%	-3.04%	-2.50%	4.13%	0.36
1/28/2021	\$18.72	\$19.75	-5.36%	0.92%	0.35%	0.98%	-6.34%	-0.55
1/29/2021	\$19.82	\$18.72	5.71%	-1.78%	0.31%	-2.07%	7.78%	0.68
2/1/2021	\$22.99	\$19.82	14.84%	1.71%	1.16%	1.77%	13.06%	1.14
2/2/2021	\$55.44	\$22.99	88.02%	1.39%	1.06%	1.51%	86.52%	7.52 ***
2/3/2021	\$87.95	\$55.44	46.15%	0.14%	-0.33%	0.25%	45.89%	3.98 ***
2/4/2021	\$63.43	\$87.95	-32.68%	1.12%	1.44%	1.31%	-34.00%	-2.86 ***
2/5/2021	\$44.80	\$63.43	-34.77%	0.61%	1.66%	0.45%	-35.22%	-2.91 ***
2/8/2021	\$60.67	\$44.80	30.32%	0.97%	2.09%	0.49%	29.83%	2.42 **
2/9/2021	\$57.56	\$60.67	-5.26%	0.10%	-0.62%	0.34%	-5.60%	-0.45
2/10/2021	\$49.29	\$57.56	-15.51%	-0.03%	-0.85%	0.23%	-15.74%	-1.28
2/11/2021	\$48.19	\$49.29	-2.26%	0.19%	-0.19%	0.21%	-2.46%	-0.20
2/12/2021	\$46.12	\$48.19	-4.39%	0.47%	0.49%	0.34%	-4.73%	-0.38
2/16/2021	\$51.83	\$46.12	11.67%	-0.11%	-2.18%	0.42%	11.25%	0.91
2/17/2021	\$51.22	\$51.83	-1.18%	-0.23%	0.42%	-0.49%	-0.69%	-0.06
2/18/2021	\$51.00	\$51.22	-0.43%	-0.66%	-1.86%	-0.33%	-0.10%	-0.01
2/19/2021	\$55.76	\$51.00	8.92%	0.27%	1.04%	-0.03%	8.95%	0.72
2/22/2021	\$53.02	\$55.76	-5.04%	-0.97%	-2.44%	-0.54%	-4.50%	-0.36
2/23/2021	\$52.37	\$53.02	-1.23%	-0.13%	-1.44%	0.19%	-1.42%	-0.11
2/24/2021	\$53.06	\$52.37	1.31%	1.12%	0.87%	1.06%	0.25%	0.02
2/25/2021	\$50.88	\$53.06	-4.20%	-2.70%	-2.59%	-2.60%	-1.59%	-0.13
2/26/2021	\$48.58	\$50.88	-4.63%	-0.39%	-0.02%	-0.50%	-4.13%	-0.33
3/1/2021	\$50.06	\$48.58	3.00%	2.45%	1.61%	2.45%	0.56%	0.04
3/2/2021	\$51.55	\$50.06	2.93%	-0.91%	-2.01%	-0.58%	3.51%	0.28
3/3/2021	\$48.70	\$51.55	-5.69%	-1.48%	-3.68%	-0.66%	-5.03%	-0.41
3/4/2021	\$44.48	\$48.70	-9.06%	-1.68%	-2.46%	-1.33%	-7.74%	-0.62
3/5/2021	\$43.41	\$44.48	-2.44%	1.72%	1.97%	1.47%	-3.90%	-0.31
3/8/2021	\$45.02	\$43.41	3.64%	-0.59%	-1.98%	-0.31%	3.95%	0.32
3/9/2021	\$52.05	\$45.02	14.51%	1.67%	2.92%	1.12%	13.39%	1.08
3/10/2021	\$51.60	\$52.05	-0.87%	0.68%	0.07%	0.73%	-1.60%	-0.13
3/11/2021	\$54.29	\$51.60	5.08%	1.41%	2.76%	0.92%	4.17%	0.34
3/12/2021	\$53.44	\$54.29	-1.58%	0.15%	-0.61%	0.40%	-1.98%	-0.16
3/15/2021	\$52.71	\$53.44	-1.38%	0.70%	1.49%	0.38%	-1.76%	-0.14
3/16/2021	\$52.16	\$52.71	-1.05%	-0.43%	0.00%	-0.13%	-0.92%	-0.08
3/17/2021	\$62.52	\$52.16	18.12%	0.36%	0.63%	0.20%	17.91%	1.46
3/18/2021	\$56.25	\$62.52	-10.57%	-1.81%	-3.26%	-0.39%	-10.18%	-0.83
3/19/2021	\$57.77	\$56.25	2.67%	0.18%	1.73%	-0.06%	2.72%	0.22
3/22/2021	\$55.81	\$57.77	-3.45%	0.48%	1.34%	0.20%	-3.65%	-0.30
3/23/2021	\$52.39	\$55.81	-6.32%	-1.21%	-4.02%	0.16%	-6.48%	-0.53
3/24/2021	\$48.81	\$52.39	-7.08%	-0.91%	-2.96%	-0.05%	-7.03%	-0.57
3/25/2021	\$49.71	\$48.81	1.83%	0.65%	1.11%	0.38%	1.44%	0.12
3/26/2021	\$46.57	\$49.71	-6.52%	1.52%	0.27%	1.38%	-7.91%	-0.65



## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Cassava Stock	Prior Day	Logarithmic	Logarithmic	Logarithmic	Explained	Residual	
	Closing Price	Closing Price	Return	Return	Return	Return	Return	
3/29/2021	\$44.48	\$46.57	-4.59%	-0.53%	-1.39%	-0.16%	-4.43%	-0.36
3/30/2021	\$43.96	\$44.48	-1.18%	0.00%	-0.36%	0.07%	-1.24%	-0.10
3/31/2021	\$44.95	\$43.96	2.23%	0.56%	2.51%	0.16%	2.07%	0.17
4/1/2021	\$46.87	\$44.95	4.18%	1.27%	0.83%	1.13%	3.05%	0.25
4/5/2021	\$44.83	\$46.87	-4.45%	1.14%	0.45%	1.12%	-5.57%	-0.45
4/6/2021	\$42.82	\$44.83	-4.59%	0.03%	-0.58%	0.08%	-4.67%	-0.38
4/7/2021	\$41.46	\$42.82	-3.23%	-0.15%	-1.78%	0.11%	-3.34%	-0.27
4/8/2021	\$42.10	\$41.46	1.53%	0.59%	0.32%	0.49%	1.04%	0.09
4/9/2021	\$41.57	\$42.10	-1.27%	0.55%	-0.38%	0.63%	-1.90%	-0.16
4/12/2021	\$35.96	\$41.57	-14.50%	-0.07%	-1.44%	0.13%	-14.63%	-1.20
4/13/2021	\$36.03	\$35.96	0.19%	0.40%	1.75%	-0.03%	0.22%	0.02
4/14/2021	\$35.67	\$36.03	-1.00%	-0.29%	1.51%	-0.94%	-0.07%	-0.01
4/15/2021	\$35.09	\$35.67	-1.64%	1.00%	1.26%	0.68%	-2.32%	-0.19
4/16/2021	\$34.85	\$35.09	-0.69%	0.26%	0.05%	0.07%	-0.76%	-0.06
4/19/2021	\$33.99	\$34.85	-2.50%	-0.70%	-1.09%	-0.81%	-1.69%	-0.14
4/20/2021	\$32.15	\$33.99	-5.57%	-0.91%	0.02%	-1.38%	-4.18%	-0.34
4/21/2021	\$34.87	\$32.15	8.12%	1.12%	2.00%	0.59%	7.53%	0.62
4/22/2021	\$36.08	\$34.87	3.41%	-0.73%	-0.16%	-1.13%	4.54%	0.37
4/23/2021	\$39.59	\$36.08	9.28%	1.20%	0.46%	1.08%	8.20%	0.67
4/26/2021	\$41.81	\$39.59	5.46%	0.44%	2.02%	-0.29%	5.75%	0.47
4/27/2021	\$44.34	\$41.81	5.88%	-0.02%	-0.43%	-0.24%	6.12%	0.50
4/28/2021	\$47.10	\$44.34	6.04%	0.01%	-0.72%	-0.11%	6.15%	0.51
4/29/2021	\$47.57	\$47.10	0.99%	0.35%	-1.12%	0.41%	0.58%	0.05
4/30/2021	\$46.80	\$47.57	-1.63%	-0.80%	-0.03%	-1.20%	-0.43%	-0.04
5/3/2021	\$42.99	\$46.80	-8.49%	0.20%	-0.03%	-0.01%	-8.48%	-0.70
5/4/2021	\$41.15	\$42.99	-4.37%	-0.85%	-3.10%	-0.67%	-3.70%	-0.30
5/5/2021	\$42.02	\$41.15	2.09%	-0.01%	-0.80%	-0.17%	2.27%	0.19
5/6/2021	\$41.79	\$42.02	-0.55%	0.48%	-0.36%	0.32%	-0.86%	-0.07
5/7/2021	\$41.43	\$41.79	-0.87%	0.86%	0.90%	0.50%	-1.37%	-0.11
5/10/2021	\$38.62	\$41.43	-7.02%	-1.24%	-1.85%	-1.38%	-5.64%	-0.46
5/11/2021	\$39.23	\$38.62	1.57%	-0.66%	0.53%	-1.20%	2.77%	0.23
5/12/2021	\$37.49	\$39.23	-4.54%	-2.28%	-0.93%	-2.83%	-1.70%	-0.14
5/13/2021	\$37.78	\$37.49	0.77%	0.97%	0.01%	0.69%	0.08%	0.01
5/14/2021	\$40.92	\$37.78	7.98%	1.74%	2.21%	0.90%	7.09%	0.59
5/17/2021	\$43.88	\$40.92	6.98%	-0.14%	0.39%	-0.57%	7.56%	0.63
5/18/2021	\$46.72	\$43.88	6.27%	-0.60%	0.27%	0.23%	6.04%	0.72
5/19/2021	\$47.96	\$46.72	2.62%	-0.38%	-1.04%	-0.54%	3.16%	0.38
5/20/2021	\$49.39	\$47.96	2.94%	1.11%	2.26%	2.33%	0.61%	0.07
5/21/2021	\$50.02	\$49.39	1.27%	-0.03%	-0.69%	-0.11%	1.38%	0.16
5/24/2021	\$48.28	\$50.02	-3.54%	0.93%	-0.57%	0.34%	-3.88%	-0.46
5/25/2021	\$47.77	\$48.28	-1.06%	-0.27%	-0.62%	-0.15%	-0.91%	-0.11
5/26/2021	\$50.90	\$47.77	6.35%	0.45%	0.62%	0.97%	5.37%	0.64
5/27/2021	\$55.60	\$50.90	8.83%	0.29%	0.42%	0.81%	8.02%	0.96
5/28/2021	\$53.92	\$55.60	-3.07%	0.10%	0.43%	0.80%	-3.87%	-0.46
6/1/2021	\$57.06	\$53.92	5.66%	0.17%	-0.67%	-0.02%	5.68%	0.68

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
6/2/2021	\$60.70	\$57.06	6.18%	0.17%	0.32%	0.75%	5.43%	0.65
6/3/2021	\$62.06	\$60.70	2.22%	-0.52%	-0.11%	0.24%	1.98%	0.24
6/4/2021	\$64.16	\$62.06	3.33%	0.84%	1.23%	1.56%	1.76%	0.23
6/7/2021	\$67.59	\$64.16	5.21%	0.16%	3.56%	4.42%	0.79%	0.10
6/8/2021	\$68.96	\$67.59	2.01%	0.18%	-0.09%	0.33%	1.68%	0.22
6/9/2021	\$66.38	\$68.96	-3.81%	-0.29%	1.40%	2.12%	-5.93%	-0.79
6/10/2021	\$66.35	\$66.38	-0.05%	0.40%	1.74%	2.22%	-2.26%	-0.30
6/11/2021	\$77.00	\$66.35	14.89%	0.31%	-0.74%	-0.41%	15.30%	2.03 **
6/14/2021	\$75.79	\$77.00	-1.58%	0.13%	-0.08%	0.41%	-1.99%	-0.26
6/15/2021	\$72.10	\$75.79	-4.99%	-0.30%	-1.63%	-1.07%	-3.92%	-0.52
6/16/2021	\$80.27	\$72.10	10.73%	-0.47%	-0.76%	-0.19%	10.92%	1.44
6/17/2021	\$78.60	\$80.27	-2.10%	-0.14%	0.67%	1.24%	-3.35%	-0.44
6/18/2021	\$79.65	\$78.60	1.33%	-1.26%	-0.31%	0.53%	0.80%	0.10
6/21/2021	\$89.72	\$79.65	11.91%	1.35%	0.82%	1.05%	10.86%	1.43
6/22/2021	\$77.63	\$89.72	-14.47%	0.49%	0.20%	0.64%	-15.11%	-1.99 **
6/23/2021	\$77.56	\$77.63	-0.09%	-0.01%	-0.35%	0.19%	-0.28%	-0.04
6/24/2021	\$81.46	\$77.56	4.91%	0.65%	1.26%	1.69%	3.21%	0.42
6/25/2021	\$78.41	\$81.46	-3.82%	0.32%	0.79%	1.27%	-5.09%	-0.67
6/28/2021	\$85.48	\$78.41	8.63%	0.11%	0.19%	0.68%	7.96%	1.05
6/29/2021	\$82.97	\$85.48	-2.98%	0.00%	-0.02%	0.43%	-3.41%	-0.45
6/30/2021	\$85.44	\$82.97	2.93%	0.04%	0.35%	0.82%	2.11%	0.28
7/1/2021	\$88.77	\$85.44	3.82%	0.42%	1.16%	1.71%	2.12%	0.28
7/2/2021	\$90.05	\$88.77	1.43%	0.50%	-0.45%	0.12%	1.31%	0.17
7/6/2021	\$92.80	\$90.05	3.01%	-0.30%	-1.50%	-1.03%	4.04%	0.54
7/7/2021	\$96.76	\$92.80	4.18%	0.11%	-1.32%	-0.77%	4.95%	0.66
7/8/2021	\$106.00	\$96.76	9.12%	-0.90%	0.49%	0.83%	8.29%	1.10
7/9/2021	\$95.34	\$106.00	-10.60%	1.28%	0.84%	1.59%	-12.19%	-1.62
7/12/2021	\$99.32	\$95.34	4.09%	0.22%	-0.44%	0.12%	3.97%	0.52
7/13/2021	\$103.80	\$99.32	4.41%	-0.60%	-1.09%	-0.59%	5.00%	0.66
7/14/2021	\$97.00	\$103.80	-6.78%	-0.24%	-1.26%	-0.82%	-5.95%	-0.79
7/15/2021	\$82.43	\$97.00	-16.28%	-0.39%	-0.01%	0.51%	-16.78%	-2.22 **
7/16/2021	\$80.09	\$82.43	-2.88%	-0.76%	1.07%	1.58%	-4.46%	-0.59
7/19/2021	\$82.26	\$80.09	2.67%	-1.47%	0.77%	1.08%	1.60%	0.21
7/20/2021	\$90.83	\$82.26	9.91%	1.68%	1.32%	2.08%	7.83%	1.03
7/21/2021	\$117.60	\$90.83	25.83%	0.96%	0.60%	1.32%	24.51%	3.22 ***
7/22/2021	\$126.61	\$117.60	7.38%	0.03%	-0.13%	0.44%	6.94%	0.89
7/23/2021	\$123.38	\$126.61	-2.58%	0.89%	0.79%	1.72%	-4.30%	-0.55
7/26/2021	\$119.99	\$123.38	-2.79%	0.16%	-2.03%	-1.67%	-1.12%	-0.14
7/27/2021	\$127.50	\$119.99	6.07%	-0.60%	-0.93%	-0.65%	6.72%	0.87
7/28/2021	\$135.30	\$127.50	5.94%	0.30%	2.92%	4.24%	1.70%	0.22
7/29/2021	\$103.35	\$135.30	-26.94%	0.45%	-0.84%	-0.34%	-26.60%	-3.42 ***
7/30/2021	\$69.53	\$103.35	-39.64%	-0.56%	-0.14%	0.37%	-40.01%	-5.14 ***
8/2/2021	\$79.98	\$69.53	14.00%	-0.14%	-0.01%	0.42%	13.58%	1.66 *
8/3/2021	\$84.86	\$79.98	5.92%	0.68%	2.17%	3.32%	2.60%	0.32
8/4/2021	\$88.26	\$84.86	3.93%	-0.40%	1.37%	2.10%	1.83%	0.22

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
8/5/2021	\$101.59	\$88.26	14.07%	0.71%	1.82%	2.98%	11.08%	1.34
8/6/2021	\$96.41	\$101.59	-5.23%	0.08%	-1.51%	-1.28%	-3.95%	-0.48
8/9/2021	\$104.99	\$96.41	8.53%	-0.04%	2.56%	3.86%	4.66%	0.56
8/10/2021	\$108.62	\$104.99	3.40%	0.07%	-1.64%	-1.50%	4.90%	0.59
8/11/2021	\$108.97	\$108.62	0.32%	0.24%	-3.04%	-3.26%	3.59%	0.43
8/12/2021	\$120.30	\$108.97	9.89%	0.20%	0.85%	1.79%	8.10%	0.98
8/13/2021	\$122.57	\$120.30	1.87%	0.03%	-0.06%	0.58%	1.28%	0.16
8/16/2021	\$116.67	\$122.57	-4.93%	-0.08%	-1.38%	-1.08%	-3.85%	-0.47
8/17/2021	\$104.62	\$116.67	-10.90%	-0.79%	1.99%	3.08%	-13.98%	-1.69 *
8/18/2021	\$106.17	\$104.62	1.47%	-0.89%	-1.37%	-1.33%	2.80%	0.34
8/19/2021	\$101.23	\$106.17	-4.76%	-0.23%	-2.57%	-2.43%	-2.34%	-0.28
8/20/2021	\$104.06	\$101.23	2.76%	0.86%	1.64%	2.81%	-0.05%	-0.01
8/23/2021	\$115.61	\$104.06	10.53%	1.05%	3.09%	4.57%	5.95%	0.72
8/24/2021	\$117.83	\$115.61	1.90%	0.42%	-0.34%	0.40%	1.51%	0.18
8/25/2021	\$80.86	\$117.83	-37.65%	0.26%	0.47%	1.32%	-38.97%	-4.69 ***
8/26/2021	\$70.85	\$80.86	-13.22%	-0.65%	-0.65%	-0.34%	-12.87%	-1.55
8/27/2021	\$58.34	\$70.85	-19.43%	1.09%	0.33%	1.47%	-20.90%	-2.50 **
8/30/2021	\$53.26	\$58.34	-9.11%	0.30%	-0.23%	0.49%	-9.61%	-1.15
8/31/2021	\$56.85	\$53.26	6.52%	-0.11%	0.62%	1.29%	5.23%	0.62
9/1/2021	\$51.96	\$56.85	-8.99%	0.20%	1.02%	1.92%	-10.92%	-1.30
9/2/2021	\$54.35	\$51.96	4.50%	0.41%	1.06%	1.98%	2.52%	0.30
9/3/2021	\$50.20	\$54.35	-7.94%	-0.01%	-0.19%	0.39%	-8.33%	-0.99
9/7/2021	\$47.84	\$50.20	-4.82%	-0.42%	-0.27%	0.06%	-4.88%	-0.58
9/8/2021	\$46.49	\$47.84	-2.86%	-0.35%	-1.06%	-0.82%	-2.04%	-0.24
9/9/2021	\$49.72	\$46.49	6.72%	-0.29%	0.31%	0.73%	5.98%	0.71
9/10/2021	\$50.64	\$49.72	1.83%	-0.73%	-0.52%	-0.45%	2.28%	0.27
9/13/2021	\$47.12	\$50.64	-7.20%	0.20%	-1.22%	-0.72%	-6.48%	-0.76
9/14/2021	\$41.79	\$47.12	-12.00%	-0.62%	-0.27%	-0.10%	-11.90%	-1.40
9/15/2021	\$43.92	\$41.79	4.97%	0.85%	0.95%	2.15%	2.82%	0.33
9/16/2021	\$43.95	\$43.92	0.07%	-0.09%	0.50%	1.18%	-1.11%	-0.13
9/17/2021	\$48.51	\$43.95	9.87%	-0.74%	0.59%	0.88%	8.99%	1.06
9/20/2021	\$48.26	\$48.51	-0.52%	-1.84%	-2.22%	-2.99%	2.48%	0.29
9/21/2021	\$52.86	\$48.26	9.10%	0.09%	1.00%	1.65%	7.46%	0.91
9/22/2021	\$52.31	\$52.86	-1.05%	0.99%	-0.13%	1.19%	-2.23%	-0.27
9/23/2021	\$60.12	\$52.31	13.92%	1.20%	1.40%	2.99%	10.92%	1.33
9/24/2021	\$61.94	\$60.12	2.98%	-0.01%	-1.89%	-1.55%	4.54%	0.55
9/27/2021	\$68.53	\$61.94	10.11%	-0.10%	-0.78%	-0.34%	10.45%	1.27
9/28/2021	\$64.99	\$68.53	-5.30%	-2.10%	-3.01%	-4.00%	-1.30%	-0.16
9/29/2021	\$62.14	\$64.99	-4.48%	-0.01%	-0.43%	0.09%	-4.57%	-0.56
9/30/2021	\$62.08	\$62.14	-0.10%	-0.95%	0.20%	0.02%	-0.11%	-0.01
10/1/2021	\$60.52	\$62.08	-2.55%	1.06%	-1.76%	-0.53%	-2.01%	-0.25
10/4/2021	\$54.31	\$60.52	-10.83%	-1.30%	-2.00%	-2.53%	-8.30%	-1.01
10/5/2021	\$57.17	\$54.31	5.13%	0.95%	0.16%	1.37%	3.76%	0.46
10/6/2021	\$52.51	\$57.17	-8.50%	0.28%	-1.17%	-0.44%	-8.07%	-0.98
10/7/2021	\$53.62	\$52.51	2.09%	0.99%	1.25%	2.53%	-0.44%	-0.05

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
10/8/2021	\$51.49	\$53.62	-4.05%	-0.25%	-0.53%	-0.18%	-3.87%	-0.47
10/11/2021	\$51.08	\$51.49	-0.80%	-0.64%	-0.03%	0.02%	-0.82%	-0.10
10/12/2021	\$51.88	\$51.08	1.55%	0.02%	0.10%	0.65%	0.90%	0.11
10/13/2021	\$54.99	\$51.88	5.82%	0.48%	0.42%	1.36%	4.46%	0.54
10/14/2021	\$53.37	\$54.99	-2.99%	1.58%	1.31%	3.18%	-6.17%	-0.75
10/15/2021	\$49.69	\$53.37	-7.14%	0.57%	-0.68%	0.31%	-7.46%	-0.91
10/18/2021	\$50.16	\$49.69	0.94%	0.33%	-1.29%	-0.58%	1.52%	0.18
10/19/2021	\$47.50	\$50.16	-5.45%	0.68%	1.11%	2.18%	-7.63%	-0.93
10/20/2021	\$46.39	\$47.50	-2.36%	0.39%	-0.07%	0.73%	-3.09%	-0.38
10/21/2021	\$46.56	\$46.39	0.37%	0.29%	0.72%	1.48%	-1.11%	-0.14
10/22/2021	\$45.71	\$46.56	-1.84%	-0.17%	-0.45%	0.01%	-1.86%	-0.23
10/25/2021	\$47.81	\$45.71	4.49%	0.55%	1.10%	2.04%	2.45%	0.30
10/26/2021	\$47.17	\$47.81	-1.35%	-0.01%	-0.02%	0.54%	-1.89%	-0.23
10/27/2021	\$44.61	\$47.17	-5.58%	-0.76%	-1.65%	-1.58%	-4.00%	-0.49
10/28/2021	\$44.46	\$44.61	-0.34%	1.12%	1.90%	3.20%	-3.54%	-0.43
10/29/2021	\$43.13	\$44.46	-3.04%	0.10%	-0.34%	0.24%	-3.28%	-0.40
11/1/2021	\$46.11	\$43.13	6.68%	0.57%	1.59%	2.48%	4.20%	0.51
11/2/2021	\$58.07	\$46.11	23.06%	0.20%	0.78%	1.47%	21.60%	2.62 ***
11/3/2021	\$56.66	\$58.07	-2.46%	0.73%	1.71%	2.85%	-5.31%	-0.63
11/4/2021	\$84.40	\$56.66	39.85%	0.29%	-1.78%	-1.15%	41.00%	4.90 ***
11/5/2021	\$90.91	\$84.40	7.43%	0.40%	-2.69%	-2.06%	9.49%	1.13
11/8/2021	\$89.49	\$90.91	-1.57%	0.20%	0.07%	0.91%	-2.48%	-0.30
11/9/2021	\$78.41	\$89.49	-13.22%	-0.29%	-1.08%	-0.56%	-12.66%	-1.51
11/10/2021	\$69.40	\$78.41	-12.21%	-1.05%	-1.33%	-1.52%	-10.68%	-1.27
11/11/2021	\$72.43	\$69.40	4.27%	0.24%	-0.21%	0.62%	3.65%	0.43
11/12/2021	\$68.80	\$72.43	-5.14%	0.71%	0.12%	1.35%	-6.49%	-0.77
11/15/2021	\$60.51	\$68.80	-12.84%	-0.03%	-0.45%	0.09%	-12.92%	-1.53
11/16/2021	\$61.69	\$60.51	1.93%	0.40%	0.08%	0.92%	1.01%	0.12
11/17/2021	\$47.07	\$61.69	-27.05%	-0.45%	-0.09%	-0.03%	-27.02%	-3.20 ***
11/18/2021	\$48.44	\$47.07	2.87%	0.03%	-0.34%	0.11%	2.76%	0.32
11/19/2021	\$53.19	\$48.44	9.35%	-0.29%	0.52%	0.51%	8.85%	1.02
11/22/2021	\$52.77	\$53.19	-0.79%	-0.62%	-0.68%	-0.82%	0.03%	0.00
11/23/2021	\$52.57	\$52.77	-0.38%	-0.03%	-0.37%	0.09%	-0.47%	-0.05
11/24/2021	\$58.05	\$52.57	9.92%	0.32%	0.22%	1.01%	8.91%	1.03
11/26/2021	\$55.96	\$58.05	-3.67%	-2.26%	0.41%	-1.62%	-2.04%	-0.24
11/29/2021	\$54.62	\$55.96	-2.42%	1.00%	0.46%	2.02%	-4.45%	-0.51
11/30/2021	\$53.49	\$54.62	-2.09%	-1.93%	-0.89%	-2.46%	0.37%	0.04
12/1/2021	\$48.79	\$53.49	-9.20%	-1.52%	-2.26%	-3.20%	-6.00%	-0.69
12/2/2021	\$48.35	\$48.79	-0.91%	1.53%	0.42%	2.62%	-3.52%	-0.41
12/3/2021	\$45.85	\$48.35	-5.31%	-1.14%	-2.35%	-2.97%	-2.34%	-0.27
12/6/2021	\$43.96	\$45.85	-4.21%	1.17%	-1.56%	0.34%	-4.55%	-0.52
12/7/2021	\$47.65	\$43.96	8.06%	2.13%	3.81%	6.34%	1.72%	0.20
12/8/2021	\$49.98	\$47.65	4.77%	0.43%	1.20%	2.07%	2.71%	0.31
12/9/2021	\$45.86	\$49.98	-8.60%	-1.08%	-2.23%	-2.88%	-5.73%	-0.66
12/10/2021	\$44.10	\$45.86	-3.91%	0.61%	-1.27%	-0.18%	-3.73%	-0.43

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
12/13/2021	\$44.85	\$44.10	1.69%	-0.99%	1.30%	0.72%	0.96%	0.11
12/14/2021	\$46.94	\$44.85	4.55%	-0.77%	-0.16%	-0.58%	5.14%	0.59
12/15/2021	\$45.78	\$46.94	-2.50%	1.49%	2.22%	4.35%	-6.85%	-0.79
12/16/2021	\$43.59	\$45.78	-4.90%	-1.01%	-1.06%	-1.63%	-3.27%	-0.38
12/17/2021	\$43.27	\$43.59	-0.74%	-0.63%	2.58%	2.69%	-3.43%	-0.39
12/20/2021	\$36.77	\$43.27	-16.28%	-1.24%	-0.90%	-1.73%	-14.54%	-1.67 *
12/21/2021	\$43.67	\$36.77	17.20%	1.97%	0.66%	3.10%	14.10%	1.61
12/22/2021	\$43.58	\$43.67	-0.21%	0.95%	-0.37%	0.95%	-1.15%	-0.13
12/23/2021	\$44.19	\$43.58	1.39%	0.68%	0.89%	2.02%	-0.63%	-0.07
12/27/2021	\$46.84	\$44.19	5.82%	1.20%	-1.46%	0.01%	5.81%	0.66
12/28/2021	\$44.50	\$46.84	-5.12%	-0.24%	-0.74%	-0.62%	-4.50%	-0.51
12/29/2021	\$42.99	\$44.50	-3.45%	0.06%	0.41%	0.85%	-4.31%	-0.49
12/30/2021	\$43.77	\$42.99	1.80%	-0.10%	0.51%	0.77%	1.02%	0.12
12/31/2021	\$43.70	\$43.77	-0.16%	-0.24%	-0.87%	-0.77%	0.61%	0.07
1/3/2022	\$47.94	\$43.70	9.26%	0.61%	0.70%	1.77%	7.49%	0.86
1/4/2022	\$48.19	\$47.94	0.52%	0.52%	-2.49%	-2.36%	2.88%	0.33
1/5/2022	\$49.49	\$48.19	2.66%	-2.21%	-3.94%	-6.08%	8.74%	1.00
1/6/2022	\$49.09	\$49.49	-0.81%	0.02%	-0.04%	0.38%	-1.19%	-0.14
1/7/2022	\$47.95	\$49.09	-2.35%	-0.42%	-0.94%	-0.93%	-1.42%	-0.16
1/10/2022	\$48.38	\$47.95	0.89%	-0.19%	1.04%	1.17%	-0.28%	-0.03
1/11/2022	\$49.64	\$48.38	2.57%	1.08%	1.15%	2.68%	-0.11%	-0.01
1/12/2022	\$48.49	\$49.64	-2.34%	0.18%	-1.53%	-0.81%	-1.53%	-0.18
1/13/2022	\$45.69	\$48.49	-5.95%	-1.45%	-2.29%	-3.49%	-2.45%	-0.29
1/14/2022	\$45.88	\$45.69	0.42%	0.02%	0.92%	1.31%	-0.90%	-0.11
1/18/2022	\$41.48	\$45.88	-10.08%	-1.95%	-3.93%	-5.84%	-4.24%	-0.50
1/19/2022	\$41.17	\$41.48	-0.75%	-0.94%	-1.05%	-1.83%	1.08%	0.13
1/20/2022	\$37.41	\$41.17	-9.58%	-1.11%	-1.14%	-2.09%	-7.48%	-0.90
1/21/2022	\$36.33	\$37.41	-2.93%	-2.01%	-1.59%	-3.66%	0.73%	0.09
1/24/2022	\$39.54	\$36.33	8.47%	0.42%	0.84%	1.49%	6.98%	0.84
1/25/2022	\$40.02	\$39.54	1.21%	-1.25%	-1.42%	-2.66%	3.87%	0.47
1/26/2022	\$39.45	\$40.02	-1.43%	-0.36%	-1.17%	-1.53%	0.09%	0.01
1/27/2022	\$37.66	\$39.45	-4.64%	-0.81%	-1.82%	-2.82%	-1.82%	-0.22
1/28/2022	\$39.75	\$37.66	5.40%	2.22%	3.24%	6.15%	-0.75%	-0.09
1/31/2022	\$44.25	\$39.75	10.72%	2.22%	2.82%	5.79%	4.94%	0.61
2/1/2022	\$46.01	\$44.25	3.90%	0.85%	1.50%	2.57%	1.33%	0.16
2/2/2022	\$45.73	\$46.01	-0.61%	0.47%	-1.24%	-0.63%	0.02%	0.00
2/3/2022	\$45.08	\$45.73	-1.43%	-2.36%	-2.18%	-5.40%	3.97%	0.53
2/4/2022	\$47.81	\$45.08	5.88%	0.72%	0.44%	1.41%	4.47%	0.63
2/7/2022	\$47.04	\$47.81	-1.62%	-0.18%	1.01%	1.18%	-2.80%	-0.43
2/8/2022	\$47.12	\$47.04	0.17%	0.91%	0.09%	1.49%	-1.32%	-0.20
2/9/2022	\$49.22	\$47.12	4.36%	1.61%	2.49%	5.40%	-1.04%	-0.16
2/10/2022	\$53.05	\$49.22	7.49%	-1.64%	-2.43%	-4.94%	12.44%	1.92 *
2/11/2022	\$51.01	\$53.05	-3.92%	-1.78%	-0.96%	-3.16%	-0.76%	-0.12
2/14/2022	\$48.70	\$51.01	-4.63%	-0.41%	-1.81%	-2.34%	-2.29%	-0.35
2/15/2022	\$49.22	\$48.70	1.06%	1.75%	2.62%	5.66%	-4.60%	-0.71

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
2/16/2022	\$48.76	\$49.22	-0.94%	0.03%	-0.32%	-0.04%	-0.90%	-0.14
2/17/2022	\$44.97	\$48.76	-8.09%	-2.15%	-2.74%	-5.68%	-2.41%	-0.37
2/18/2022	\$45.29	\$44.97	0.71%	-0.83%	-1.21%	-2.26%	2.97%	0.46
2/22/2022	\$41.51	\$45.29	-8.72%	-1.13%	-0.48%	-1.78%	-6.94%	-1.07
2/23/2022	\$38.33	\$41.51	-7.97%	-1.82%	-2.09%	-4.64%	-3.33%	-0.51
2/24/2022	\$42.01	\$38.33	9.17%	1.60%	2.13%	4.85%	4.32%	0.66
2/25/2022	\$42.51	\$42.01	1.18%	2.19%	1.51%	5.12%	-3.94%	-0.60
2/28/2022	\$42.51	\$42.51	0.00%	-0.04%	-0.37%	-0.26%	0.26%	0.04
3/1/2022	\$40.17	\$42.51	-5.66%	-1.51%	-0.56%	-2.58%	-3.08%	-0.47
3/2/2022	\$40.62	\$40.17	1.11%	1.76%	0.78%	3.68%	-2.57%	-0.39
3/3/2022	\$37.11	\$40.62	-9.04%	-0.81%	-1.66%	-2.94%	-6.10%	-0.94
3/4/2022	\$37.31	\$37.11	0.54%	-1.02%	-1.33%	-2.87%	3.41%	0.52
3/7/2022	\$34.89	\$37.31	-6.71%	-2.96%	-1.08%	-5.42%	-1.29%	-0.20
3/8/2022	\$35.55	\$34.89	1.87%	-0.44%	0.30%	-0.12%	1.99%	0.31
3/9/2022	\$37.46	\$35.55	5.23%	2.59%	3.12%	7.55%	-2.31%	-0.36
3/10/2022	\$37.65	\$37.46	0.51%	-0.42%	-0.94%	-1.54%	2.05%	0.32
3/11/2022	\$35.91	\$37.65	-4.73%	-1.38%	-1.77%	-3.88%	-0.85%	-0.13
3/14/2022	\$32.60	\$35.91	-9.67%	-1.06%	-1.08%	-2.62%	-7.05%	-1.09
3/15/2022	\$34.85	\$32.60	6.67%	1.89%	1.31%	4.47%	2.20%	0.34
3/16/2022	\$37.19	\$34.85	6.50%	2.51%	3.62%	8.16%	-1.66%	-0.26
3/17/2022	\$39.13	\$37.19	5.08%	1.38%	2.18%	4.61%	0.47%	0.07
3/18/2022	\$39.08	\$39.13	-0.13%	1.22%	1.53%	3.60%	-3.73%	-0.58
3/21/2022	\$38.22	\$39.08	-2.23%	-0.17%	-1.37%	-1.71%	-0.52%	-0.08
3/22/2022	\$38.94	\$38.22	1.87%	1.17%	2.09%	4.16%	-2.30%	-0.36
3/23/2022	\$39.82	\$38.94	2.23%	-1.19%	-2.13%	-4.02%	6.25%	0.98
3/24/2022	\$40.83	\$39.82	2.50%	1.30%	1.36%	3.46%	-0.96%	-0.15
3/25/2022	\$40.17	\$40.83	-1.63%	0.31%	-1.63%	-1.21%	-0.42%	-0.07
3/28/2022	\$40.14	\$40.17	-0.07%	0.61%	0.49%	1.61%	-1.68%	-0.26
3/29/2022	\$39.98	\$40.14	-0.40%	1.46%	2.66%	5.15%	-5.55%	-0.87
3/30/2022	\$38.54	\$39.98	-3.67%	-0.77%	-1.30%	-2.34%	-1.33%	-0.21
3/31/2022	\$37.14	\$38.54	-3.70%	-1.46%	-0.34%	-2.40%	-1.30%	-0.20
4/1/2022	\$37.95	\$37.14	2.16%	0.45%	2.28%	3.15%	-0.99%	-0.16
4/4/2022	\$38.47	\$37.95	1.36%	0.83%	1.23%	2.69%	-1.33%	-0.21
4/5/2022	\$31.23	\$38.47	-20.85%	-1.49%	-1.67%	-3.83%	-17.02%	-2.68 ***
4/6/2022	\$29.20	\$31.23	-6.72%	-1.13%	0.26%	-1.53%	-5.19%	-0.81
4/7/2022	\$28.05	\$29.20	-4.02%	0.25%	0.83%	1.32%	-5.33%	-0.83
4/8/2022	\$27.09	\$28.05	-3.48%	-0.32%	-0.29%	-0.78%	-2.71%	-0.42
4/11/2022	\$26.05	\$27.09	-3.91%	-1.45%	-2.17%	-4.45%	0.53%	0.08
4/12/2022	\$26.17	\$26.05	0.46%	-0.27%	-0.53%	-0.86%	1.32%	0.21
4/13/2022	\$26.94	\$26.17	2.90%	1.33%	2.64%	4.91%	-2.01%	-0.31
4/14/2022	\$26.25	\$26.94	-2.59%	-1.18%	-1.13%	-2.99%	0.40%	0.06
4/18/2022	\$25.31	\$26.25	-3.65%	-0.21%	-2.90%	-2.88%	-0.76%	-0.12
4/19/2022	\$22.46	\$25.31	-11.95%	1.62%	0.80%	3.77%	-15.72%	-2.46 **
4/20/2022	\$20.39	\$22.46	-9.67%	-0.09%	0.26%	0.22%	-9.88%	-1.53
4/21/2022	\$18.51	\$20.39	-9.67%	-1.70%	-2.36%	-4.96%	-4.71%	-0.73

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
4/22/2022	\$19.01	\$18.51	2.67%	-2.67%	-2.27%	-6.62%	9.28%	1.43
4/25/2022	\$20.61	\$19.01	8.08%	0.53%	1.41%	2.21%	5.87%	0.90
4/26/2022	\$21.55	\$20.61	4.46%	-2.87%	-3.70%	-7.95%	12.41%	1.91 *
4/27/2022	\$21.11	\$21.55	-2.06%	0.13%	-0.36%	-0.11%	-1.95%	-0.30
4/28/2022	\$20.90	\$21.11	-1.00%	2.27%	-0.27%	2.84%	-3.84%	-0.59
4/29/2022	\$20.87	\$20.90	-0.14%	-3.41%	-2.27%	-6.70%	6.56%	1.00
5/2/2022	\$20.80	\$20.87	-0.34%	0.59%	1.39%	2.18%	-2.52%	-0.38
5/3/2022	\$21.08	\$20.80	1.34%	0.51%	0.47%	1.15%	0.19%	0.03
5/4/2022	\$21.11	\$21.08	0.14%	2.76%	1.70%	5.09%	-4.95%	-0.76
5/5/2022	\$20.75	\$21.11	-1.72%	-3.70%	-4.12%	-8.43%	6.71%	1.03
5/6/2022	\$20.05	\$20.75	-3.43%	-0.84%	-3.91%	-4.88%	1.45%	0.22
5/9/2022	\$18.93	\$20.05	-5.75%	-3.61%	-5.05%	-8.93%	3.18%	0.49
5/10/2022	\$19.78	\$18.93	4.39%	0.13%	2.63%	2.84%	1.55%	0.24
5/11/2022	\$17.22	\$19.78	-13.86%	-1.73%	-3.68%	-5.38%	-8.48%	-1.30
5/12/2022	\$17.63	\$17.22	2.35%	0.15%	2.89%	3.28%	-0.93%	-0.14
5/13/2022	\$19.24	\$17.63	8.74%	2.66%	3.31%	6.26%	2.48%	0.38
5/16/2022	\$20.82	\$19.24	7.89%	-0.47%	0.57%	0.18%	7.71%	1.17
5/17/2022	\$22.76	\$20.82	8.91%	2.03%	2.97%	5.26%	3.65%	0.56
5/18/2022	\$22.28	\$22.76	-2.13%	-3.84%	-2.92%	-7.04%	4.91%	0.75
5/19/2022	\$23.98	\$22.28	7.35%	-0.21%	1.24%	1.19%	6.17%	0.94
5/20/2022	\$25.15	\$23.98	4.76%	0.00%	0.80%	0.97%	3.80%	0.58
5/23/2022	\$27.23	\$25.15	7.95%	1.63%	0.59%	2.25%	5.70%	0.87
5/24/2022	\$25.06	\$27.23	-8.30%	-1.07%	-1.59%	-2.66%	-5.64%	-0.86
5/25/2022	\$26.64	\$25.06	6.11%	1.11%	0.51%	1.79%	4.32%	0.66
5/26/2022	\$25.50	\$26.64	-4.37%	1.96%	0.59%	2.76%	-7.14%	-1.08
5/27/2022	\$26.66	\$25.50	4.45%	2.42%	2.72%	5.36%	-0.91%	-0.14
5/31/2022	\$30.60	\$26.66	13.78%	-0.70%	-2.29%	-3.15%	16.94%	2.57 **
6/1/2022	\$26.82	\$30.60	-13.19%	-0.70%	-1.04%	-1.67%	-11.51%	-1.73 *
6/2/2022	\$27.56	\$26.82	2.72%	2.01%	0.34%	2.34%	0.38%	0.06
6/3/2022	\$29.06	\$27.56	5.30%	-1.55%	0.46%	-1.03%	6.33%	0.95
6/6/2022	\$27.93	\$29.06	-3.97%	0.29%	-1.65%	-1.49%	-2.48%	-0.37
6/7/2022	\$28.88	\$27.93	3.34%	0.98%	2.70%	3.86%	-0.52%	-0.08
6/8/2022	\$28.20	\$28.88	-2.38%	-1.05%	0.40%	-0.51%	-1.87%	-0.28
6/9/2022	\$25.87	\$28.20	-8.62%	-2.39%	-3.78%	-6.31%	-2.31%	-0.34
6/10/2022	\$27.49	\$25.87	6.07%	-2.86%	-3.03%	-5.97%	12.04%	1.80 *
6/13/2022	\$22.67	\$27.49	-19.28%	-4.15%	-4.09%	-7.85%	-11.42%	-1.71 *
6/14/2022	\$24.45	\$22.67	7.56%	-0.35%	0.26%	-0.03%	7.59%	1.13
6/15/2022	\$26.80	\$24.45	9.18%	1.49%	2.32%	4.03%	5.15%	0.77
6/16/2022	\$26.43	\$26.80	-1.39%	-3.48%	-2.23%	-5.73%	4.34%	0.65
6/17/2022	\$26.92	\$26.43	1.84%	0.40%	3.90%	5.11%	-3.28%	-0.49
6/21/2022	\$26.61	\$26.92	-1.16%	2.23%	2.27%	4.58%	-5.73%	-0.86
6/22/2022	\$29.27	\$26.61	9.53%	-0.22%	1.39%	1.42%	8.11%	1.21
6/23/2022	\$30.80	\$29.27	5.10%	0.91%	3.86%	5.41%	-0.32%	-0.05
6/24/2022	\$30.44	\$30.80	-1.18%	2.94%	1.70%	4.37%	-5.54%	-0.83
6/27/2022	\$30.85	\$30.44	1.34%	-0.21%	-0.22%	-0.47%	1.81%	0.27

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Cassava Stock	Prior Day	Logarithmic	Logarithmic	Logarithmic	Explained	Residual	
	Closing Price	Closing Price	Return	Return	Return	Return	Return	
6/28/2022	\$29.47	\$30.85	-4.58%	-1.89%	-2.39%	-4.32%	-0.26%	-0.04
6/29/2022	\$29.75	\$29.47	0.95%	-0.27%	0.75%	0.69%	0.26%	0.04
6/30/2022	\$28.12	\$29.75	-5.63%	-0.90%	-0.79%	-1.66%	-3.98%	-0.60
7/1/2022	\$26.51	\$28.12	-5.90%	1.09%	2.15%	3.38%	-9.28%	-1.39
7/5/2022	\$26.49	\$26.51	-0.08%	0.20%	2.16%	2.61%	-2.68%	-0.40
7/6/2022	\$24.43	\$26.49	-8.10%	0.07%	0.24%	0.20%	-8.30%	-1.24
7/7/2022	\$24.91	\$24.43	1.95%	1.68%	2.38%	3.88%	-1.93%	-0.29
7/8/2022	\$24.28	\$24.91	-2.56%	-0.08%	0.50%	0.32%	-2.88%	-0.43
7/11/2022	\$23.34	\$24.28	-3.95%	-1.33%	-1.95%	-3.57%	-0.38%	-0.06
7/12/2022	\$23.23	\$23.34	-0.47%	-0.81%	-0.17%	-1.08%	0.60%	0.09
7/13/2022	\$23.40	\$23.23	0.73%	-0.34%	0.03%	-0.48%	1.21%	0.18
7/14/2022	\$23.27	\$23.40	-0.56%	-0.56%	-1.68%	-2.69%	2.13%	0.32
7/15/2022	\$23.91	\$23.27	2.71%	1.84%	1.80%	3.35%	-0.63%	-0.10
7/18/2022	\$23.57	\$23.91	-1.43%	-0.56%	-2.36%	-3.38%	1.95%	0.30
7/19/2022	\$24.36	\$23.57	3.30%	2.70%	2.79%	5.23%	-1.93%	-0.30
7/20/2022	\$24.21	\$24.36	-0.62%	0.78%	0.03%	0.48%	-1.10%	-0.17
7/21/2022	\$23.64	\$24.21	-2.38%	0.93%	0.18%	0.69%	-3.07%	-0.47
7/22/2022	\$22.93	\$23.64	-3.05%	-1.05%	-2.28%	-3.74%	0.69%	0.11
7/25/2022	\$21.69	\$22.93	-5.56%	0.20%	0.33%	0.16%	-5.72%	-0.91
7/26/2022	\$21.72	\$21.69	0.14%	-1.19%	0.06%	-1.06%	1.20%	0.19
7/27/2022	\$18.69	\$21.72	-15.02%	2.50%	1.03%	2.47%	-17.49%	-2.79 ***
7/28/2022	\$16.84	\$18.69	-10.42%	1.24%	-0.58%	-0.31%	-10.11%	-1.61
7/29/2022	\$16.33	\$16.84	-3.08%	1.33%	-0.62%	-0.46%	-2.62%	-0.42
8/1/2022	\$17.95	\$16.33	9.46%	-0.22%	-1.72%	-2.74%	12.20%	1.94 *
8/2/2022	\$19.38	\$17.95	7.67%	-0.53%	0.66%	0.33%	7.34%	1.27
8/3/2022	\$18.50	\$19.38	-4.65%	1.49%	3.87%	5.37%	-10.01%	-1.75 *
8/4/2022	\$17.16	\$18.50	-7.52%	-0.05%	2.35%	2.71%	-10.23%	-1.78 *
8/5/2022	\$17.50	\$17.16	1.96%	-0.04%	1.44%	1.36%	0.60%	0.10
8/8/2022	\$19.42	\$17.50	10.41%	0.12%	0.92%	0.74%	9.67%	1.69 *
8/9/2022	\$20.21	\$19.42	3.99%	-0.64%	-1.70%	-2.67%	6.66%	1.16
8/10/2022	\$19.82	\$20.21	-1.95%	2.24%	2.17%	3.44%	-5.39%	-0.94
8/11/2022	\$19.85	\$19.82	0.15%	-0.02%	-1.55%	-2.13%	2.28%	0.40
8/12/2022	\$20.42	\$19.85	2.83%	1.67%	1.18%	1.87%	0.96%	0.17
8/15/2022	\$20.19	\$20.42	-1.13%	0.28%	1.64%	1.59%	-2.73%	-0.48
8/16/2022	\$20.21	\$20.19	0.10%	0.19%	-1.35%	-1.85%	1.95%	0.34
8/17/2022	\$25.72	\$20.21	24.11%	-0.92%	-2.10%	-3.27%	27.38%	4.79 ***
8/18/2022	\$26.47	\$25.72	2.87%	0.27%	-1.20%	-1.70%	4.57%	0.81
8/19/2022	\$25.58	\$26.47	-3.42%	-1.47%	-0.78%	-2.00%	-1.42%	-0.25
8/22/2022	\$24.61	\$25.58	-3.87%	-2.05%	-1.57%	-3.23%	-0.64%	-0.11
8/23/2022	\$25.31	\$24.61	2.80%	-0.07%	0.05%	-0.35%	3.15%	0.56
8/24/2022	\$27.83	\$25.31	9.49%	0.39%	1.36%	1.35%	8.14%	1.44
8/25/2022	\$27.28	\$27.83	-2.00%	1.41%	0.14%	0.50%	-2.50%	-0.44
8/26/2022	\$29.39	\$27.28	7.45%	-3.24%	-3.41%	-5.94%	13.39%	2.36 **
8/29/2022	\$26.12	\$29.39	-11.80%	-0.65%	-0.65%	-1.28%	-10.52%	-1.85 *
8/30/2022	\$26.24	\$26.12	0.46%	-1.15%	-0.96%	-1.88%	2.34%	0.41



## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
8/31/2022	\$25.73	\$26.24	-1.96%	-0.72%	0.21%	-0.34%	-1.62%	-0.28
9/1/2022	\$25.34	\$25.73	-1.53%	-0.11%	1.87%	1.81%	-3.34%	-0.59
9/2/2022	\$24.68	\$25.34	-2.64%	-0.86%	-1.61%	-2.51%	-0.13%	-0.02
9/6/2022	\$28.36	\$24.68	13.90%	-0.49%	-1.71%	-2.49%	16.38%	2.90 ***
9/7/2022	\$29.32	\$28.36	3.33%	1.81%	2.89%	3.74%	-0.41%	-0.07
9/8/2022	\$29.61	\$29.32	0.98%	0.74%	3.19%	3.58%	-2.60%	-0.45
9/9/2022	\$32.80	\$29.61	10.23%	1.65%	0.93%	1.50%	8.73%	1.52
9/12/2022	\$33.38	\$32.80	1.75%	1.07%	0.20%	0.52%	1.23%	0.21
9/13/2022	\$30.87	\$33.38	-7.82%	-4.14%	-4.23%	-6.86%	-0.96%	-0.17
9/14/2022	\$32.92	\$30.87	6.43%	0.40%	0.90%	0.91%	5.52%	0.97
9/15/2022	\$31.58	\$32.92	-4.16%	-1.03%	0.26%	-0.51%	-3.65%	-0.64
9/16/2022	\$31.04	\$31.58	-1.72%	-0.96%	-0.98%	-1.80%	0.08%	0.01
9/19/2022	\$30.30	\$31.04	-2.41%	0.69%	-1.00%	-0.90%	-1.51%	-0.26
9/20/2022	\$38.91	\$30.30	25.01%	-1.23%	-0.73%	-1.77%	26.78%	4.71 ***
9/21/2022	\$37.64	\$38.91	-3.32%	-1.61%	-2.45%	-3.57%	0.25%	0.04
9/22/2022	\$51.06	\$37.64	30.49%	-1.15%	-0.52%	-1.37%	31.87%	5.38 ***
9/23/2022	\$41.87	\$51.06	-19.84%	-1.93%	-1.41%	-2.38%	-17.46%	-2.79 ***
9/26/2022	\$45.19	\$41.87	7.63%	-1.15%	-1.67%	-2.50%	10.13%	1.60
9/27/2022	\$46.18	\$45.19	2.17%	-0.07%	1.50%	1.41%	0.76%	0.12
9/28/2022	\$43.84	\$46.18	-5.20%	2.14%	4.21%	5.31%	-10.51%	-1.65 *
9/29/2022	\$43.07	\$43.84	-1.77%	-2.12%	-1.79%	-2.96%	1.18%	0.19
9/30/2022	\$41.82	\$43.07	-2.95%	-1.24%	-0.23%	-0.97%	-1.98%	-0.31
10/3/2022	\$41.50	\$41.82	-0.77%	2.51%	1.43%	2.39%	-3.16%	-0.49
10/4/2022	\$41.72	\$41.50	0.53%	3.19%	2.93%	4.14%	-3.61%	-0.56
10/5/2022	\$40.97	\$41.72	-1.81%	-0.32%	0.01%	-0.35%	-1.47%	-0.23
10/6/2022	\$42.35	\$40.97	3.31%	-0.94%	-0.54%	-1.16%	4.48%	0.70
10/7/2022	\$39.93	\$42.35	-5.88%	-2.78%	-2.67%	-4.00%	-1.88%	-0.30
10/10/2022	\$36.32	\$39.93	-9.48%	-0.82%	-0.67%	-1.24%	-8.23%	-1.29
10/11/2022	\$35.64	\$36.32	-1.89%	-0.64%	0.69%	0.17%	-2.06%	-0.32
10/12/2022	\$35.86	\$35.64	0.62%	-0.29%	0.49%	0.10%	0.52%	0.08
10/13/2022	\$37.21	\$35.86	3.70%	2.32%	1.93%	2.63%	1.06%	0.17
10/14/2022	\$36.46	\$37.21	-2.04%	-2.40%	-1.54%	-2.83%	0.80%	0.13
10/17/2022	\$35.92	\$36.46	-1.49%	2.64%	2.04%	2.92%	-4.41%	-0.69
10/18/2022	\$34.92	\$35.92	-2.82%	1.15%	0.06%	0.31%	-3.13%	-0.49
10/19/2022	\$33.28	\$34.92	-4.81%	-0.90%	-3.35%	-4.00%	-0.81%	-0.13
10/20/2022	\$33.94	\$33.28	1.96%	-0.75%	-0.57%	-1.13%	3.10%	0.49
10/21/2022	\$34.99	\$33.94	3.05%	2.19%	2.56%	3.25%	-0.20%	-0.03
10/24/2022	\$34.07	\$34.99	-2.66%	0.87%	0.86%	0.98%	-3.65%	-0.57
10/25/2022	\$34.31	\$34.07	0.70%	1.81%	1.68%	2.18%	-1.47%	-0.23
10/26/2022	\$35.55	\$34.31	3.55%	-0.46%	1.43%	1.02%	2.53%	0.40
10/27/2022	\$34.83	\$35.55	-2.05%	-0.41%	-1.45%	-1.88%	-0.16%	-0.03
10/28/2022	\$36.76	\$34.83	5.39%	2.11%	4.05%	4.70%	0.70%	0.11
10/31/2022	\$36.44	\$36.76	-0.87%	-0.60%	-0.86%	-1.33%	0.45%	0.07
11/1/2022	\$35.96	\$36.44	-1.33%	-0.22%	0.87%	0.61%	-1.94%	-0.31
11/2/2022	\$35.72	\$35.96	-0.67%	-2.54%	-1.45%	-2.69%	2.02%	0.32

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
11/3/2022	\$34.21	\$35.72	-4.32%	-0.89%	0.10%	-0.58%	-3.74%	-0.61
11/4/2022	\$35.27	\$34.21	3.05%	1.31%	0.16%	0.39%	2.66%	0.43
11/7/2022	\$34.11	\$35.27	-3.34%	0.81%	0.48%	0.52%	-3.86%	-0.63
11/8/2022	\$34.89	\$34.11	2.26%	0.53%	0.91%	0.77%	1.49%	0.24
11/9/2022	\$34.59	\$34.89	-0.86%	-2.14%	-1.24%	-2.36%	1.49%	0.24
11/10/2022	\$34.96	\$34.59	1.06%	5.38%	3.51%	5.16%	-4.09%	-0.67
11/11/2022	\$37.60	\$34.96	7.28%	1.05%	0.17%	0.19%	7.09%	1.17
11/14/2022	\$41.15	\$37.60	9.02%	-0.96%	0.27%	-0.27%	9.29%	1.53
11/15/2022	\$40.10	\$41.15	-2.58%	1.01%	0.37%	0.46%	-3.04%	-0.50
11/16/2022	\$34.87	\$40.10	-13.97%	-0.98%	-0.92%	-1.39%	-12.58%	-2.09 **
11/17/2022	\$34.56	\$34.87	-0.89%	-0.41%	-0.21%	-0.57%	-0.32%	-0.05
11/18/2022	\$33.33	\$34.56	-3.62%	0.42%	0.53%	0.55%	-4.18%	-0.72
11/21/2022	\$32.61	\$33.33	-2.18%	-0.46%	-0.63%	-0.93%	-1.25%	-0.21
11/22/2022	\$32.90	\$32.61	0.89%	1.32%	0.88%	1.10%	-0.21%	-0.04
11/23/2022	\$33.64	\$32.90	2.22%	0.59%	-0.41%	-0.46%	2.68%	0.46
11/25/2022	\$34.92	\$33.64	3.73%	0.04%	0.11%	-0.04%	3.78%	0.65
11/28/2022	\$33.91	\$34.92	-2.93%	-1.58%	-0.67%	-1.32%	-1.61%	-0.28
11/29/2022	\$34.40	\$33.91	1.43%	-0.07%	-0.24%	-0.46%	1.90%	0.33
11/30/2022	\$34.83	\$34.40	1.24%	2.90%	3.19%	3.95%	-2.71%	-0.47
12/1/2022	\$34.14	\$34.83	-2.00%	0.02%	0.41%	0.26%	-2.26%	-0.39
12/2/2022	\$35.83	\$34.14	4.83%	-0.06%	1.21%	1.09%	3.75%	0.65
12/5/2022	\$33.74	\$35.83	-6.01%	-1.96%	-2.15%	-2.87%	-3.14%	-0.54
12/6/2022	\$33.62	\$33.74	-0.36%	-1.42%	-1.65%	-2.22%	1.86%	0.32
12/7/2022	\$36.91	\$33.62	9.34%	-0.19%	0.96%	0.81%	8.53%	1.48
12/8/2022	\$38.49	\$36.91	4.19%	0.73%	1.04%	1.14%	3.05%	0.53
12/9/2022	\$38.73	\$38.49	0.62%	-0.75%	-2.13%	-2.48%	3.11%	0.54
12/12/2022	\$42.15	\$38.73	8.46%	1.29%	0.91%	1.18%	7.28%	1.26
12/13/2022	\$44.16	\$42.15	4.66%	0.73%	1.49%	1.64%	3.02%	0.52
12/14/2022	\$44.12	\$44.16	-0.09%	-0.55%	0.66%	0.44%	-0.53%	-0.09
12/15/2022	\$39.57	\$44.12	-10.88%	-2.44%	-1.83%	-2.61%	-8.27%	-1.43
12/16/2022	\$38.70	\$39.57	-2.22%	-1.04%	-0.89%	-1.30%	-0.92%	-0.16
12/19/2022	\$38.10	\$38.70	-1.56%	-0.97%	-1.91%	-2.24%	0.68%	0.12
12/20/2022	\$37.73	\$38.10	-0.98%	0.19%	1.28%	1.29%	-2.27%	-0.39
12/21/2022	\$36.89	\$37.73	-2.25%	1.45%	1.26%	1.73%	-3.98%	-0.70
12/22/2022	\$33.25	\$36.89	-10.39%	-1.41%	0.00%	-0.42%	-9.97%	-1.75 *
12/23/2022	\$31.68	\$33.25	-4.84%	0.55%	-1.52%	-1.27%	-3.56%	-0.62
12/27/2022	\$28.67	\$31.68	-9.98%	-0.39%	-2.24%	-2.36%	-7.63%	-1.33
12/28/2022	\$27.82	\$28.67	-3.01%	-1.24%	-0.30%	-0.72%	-2.29%	-0.40
12/29/2022	\$28.93	\$27.82	3.91%	1.82%	2.10%	2.57%	1.34%	0.23
12/30/2022	\$29.54	\$28.93	2.09%	-0.25%	0.32%	0.20%	1.88%	0.33
1/3/2023	\$27.76	\$29.54	-6.21%	-0.39%	-0.93%	-1.17%	-5.05%	-0.88
1/4/2023	\$29.80	\$27.76	7.09%	0.95%	1.11%	1.32%	5.77%	1.00
1/5/2023	\$29.28	\$29.80	-1.76%	-1.10%	0.21%	-0.14%	-1.62%	-0.28
1/6/2023	\$28.57	\$29.28	-2.45%	2.20%	1.37%	1.85%	-4.31%	-0.75
1/9/2023	\$28.82	\$28.57	0.87%	0.11%	-2.33%	-2.88%	3.75%	0.66

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock Closing Price	Cassava Stock Prior Day Closing Price	Cassava Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Stock Explained Return	Cassava Stock Residual Return	t -statistic
1/10/2023	\$31.24	\$28.82	8.06%	0.73%	1.84%	2.06%	6.00%	1.05
1/11/2023	\$35.59	\$31.24	13.04%	1.25%	0.36%	0.51%	12.53%	2.18 **
1/12/2023	\$34.06	\$35.59	-4.39%	0.57%	1.18%	1.37%	-5.77%	-1.00
1/13/2023	\$34.00	\$34.06	-0.18%	0.43%	0.76%	0.84%	-1.01%	-0.17
1/17/2023	\$34.58	\$34.00	1.69%	-0.11%	-0.06%	-0.21%	1.90%	0.33
1/18/2023	\$34.16	\$34.58	-1.22%	-1.43%	-0.69%	-1.23%	0.00%	0.00
1/19/2023	\$33.06	\$34.16	-3.27%	-0.75%	-1.03%	-1.41%	-1.86%	-0.32
1/20/2023	\$34.84	\$33.06	5.24%	1.79%	0.91%	1.38%	3.86%	0.67
1/23/2023	\$36.44	\$34.84	4.49%	1.17%	0.61%	0.93%	3.56%	0.61
1/24/2023	\$29.44	\$36.44	-21.33%	-0.11%	0.37%	0.33%	-21.66%	-3.75 ***
1/25/2023	\$27.49	\$29.44	-6.85%	0.03%	0.05%	0.05%	-6.90%	-1.19
1/26/2023	\$27.91	\$27.49	1.52%	1.03%	0.06%	0.30%	1.21%	0.21
1/27/2023	\$28.91	\$27.91	3.52%	0.35%	0.03%	0.06%	3.46%	0.60
1/30/2023	\$27.24	\$28.91	-5.95%	-1.31%	-1.56%	-2.08%	-3.87%	-0.67
1/31/2023	\$28.00	\$27.24	2.75%	1.54%	1.18%	1.63%	1.12%	0.19
2/1/2023	\$28.80	\$28.00	2.82%	1.11%	-0.18%	0.12%	2.70%	0.47
2/2/2023	\$31.52	\$28.80	9.02%	1.37%	0.00%	0.37%	8.66%	1.50
2/3/2023	\$30.92	\$31.52	-1.92%	-1.07%	-0.38%	-0.84%	-1.08%	-0.19
2/6/2023	\$29.59	\$30.92	-4.40%	-0.72%	-0.54%	-0.86%	-3.54%	-0.61
2/7/2023	\$29.88	\$29.59	0.98%	0.98%	1.14%	0.36%	0.71%	0.05
2/8/2023	\$29.51	\$29.88	-1.25%	-1.04%	-2.38%	-2.77%	1.52%	0.26
2/9/2023	\$28.51	\$29.51	-3.45%	-0.89%	-0.35%	-0.78%	-2.67%	-0.46
2/10/2023	\$28.08	\$28.51	-1.52%	0.15%	0.33%	0.27%	-1.79%	-0.31
2/13/2023	\$26.86	\$28.08	-4.44%	1.08%	1.03%	1.28%	-5.72%	-0.99
2/14/2023	\$25.99	\$26.86	-3.29%	0.09%	-0.12%	-0.26%	-3.03%	-0.53
2/15/2023	\$26.41	\$25.99	1.60%	0.44%	-0.07%	-0.10%	1.70%	0.29
2/16/2023	\$26.35	\$26.41	-0.23%	-1.28%	-1.40%	-2.03%	1.80%	0.31
2/17/2023	\$27.00	\$26.35	2.44%	-0.29%	1.28%	0.95%	1.49%	0.26
2/21/2023	\$25.21	\$27.00	-6.86%	-2.07%	-2.50%	-3.38%	-3.48%	-0.61
2/22/2023	\$25.24	\$25.21	0.12%	-0.06%	0.12%	-0.06%	0.18%	0.03
2/23/2023	\$25.43	\$25.24	0.75%	0.49%	-0.55%	-0.50%	1.25%	0.22
2/24/2023	\$24.90	\$25.43	-2.11%	-1.02%	-1.95%	-2.40%	0.29%	0.05
2/27/2023	\$24.78	\$24.90	-0.48%	0.33%	0.44%	0.44%	-0.93%	-0.16
2/28/2023	\$24.70	\$24.78	-0.32%	-0.26%	0.22%	-0.02%	-0.31%	-0.05
3/1/2023	\$25.02	\$24.70	1.29%	-0.32%	0.58%	0.31%	0.98%	0.17
3/2/2023	\$25.40	\$25.02	1.51%	0.65%	-0.18%	-0.07%	1.58%	0.28
3/3/2023	\$26.50	\$25.40	4.24%	1.54%	1.43%	1.79%	2.45%	0.43
3/6/2023	\$26.29	\$26.50	-0.80%	-0.18%	-1.06%	-1.17%	0.37%	0.07
3/7/2023	\$25.20	\$26.29	-4.23%	-1.47%	-1.22%	-1.73%	-2.51%	-0.44
3/8/2023	\$24.97	\$25.20	-0.92%	0.13%	-0.75%	-0.74%	-0.17%	-0.03
3/9/2023	\$24.79	\$24.97	-0.72%	-1.95%	-1.97%	-2.58%	1.86%	0.33
3/10/2023	\$24.90	\$24.79	0.44%	-1.66%	-1.45%	-1.98%	2.42%	0.43
3/13/2023	\$25.62	\$24.90	2.85%	-0.31%	2.70%	2.42%	0.43%	0.08
3/14/2023	\$26.01	\$25.62	1.51%	1.57%	1.13%	1.49%	0.02%	0.00
3/15/2023	\$26.05	\$26.01	0.15%	-0.93%	-0.44%	-0.75%	0.91%	0.16

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
3/16/2023	\$26.75	\$26.05	2.65%	1.62%	0.56%	0.96%	1.69%	0.30
3/17/2023	\$26.34	\$26.75	-1.54%	-1.21%	-1.67%	-1.96%	0.42%	0.07
3/20/2023	\$26.15	\$26.34	-0.72%	0.87%	1.12%	1.24%	-1.97%	-0.35
3/21/2023	\$25.71	\$26.15	-1.70%	1.38%	-0.15%	0.16%	-1.86%	-0.33
3/22/2023	\$23.53	\$25.71	-8.86%	-1.66%	-2.10%	-2.47%	-6.39%	-1.13
3/23/2023	\$23.95	\$23.53	1.77%	0.18%	1.25%	1.16%	0.61%	0.11
3/24/2023	\$24.17	\$23.95	0.91%	0.47%	1.14%	1.14%	-0.22%	-0.04
3/27/2023	\$24.14	\$24.17	-0.12%	0.32%	0.27%	0.24%	-0.37%	-0.06
3/28/2023	\$23.46	\$24.14	-2.86%	-0.08%	0.13%	0.00%	-2.86%	-0.51
3/29/2023	\$23.79	\$23.46	1.40%	1.37%	1.24%	1.43%	-0.04%	-0.01
3/30/2023	\$24.01	\$23.79	0.92%	0.55%	-0.64%	-0.60%	1.52%	0.27
3/31/2023	\$24.12	\$24.01	0.46%	1.45%	1.40%	1.66%	-1.20%	-0.21
4/3/2023	\$24.26	\$24.12	0.58%	0.31%	0.52%	0.49%	0.09%	0.02
4/4/2023	\$24.01	\$24.26	-1.04%	-0.66%	-0.75%	-0.98%	-0.05%	-0.01
4/5/2023	\$23.84	\$24.01	-0.71%	-0.41%	0.66%	0.48%	-1.19%	-0.21
4/6/2023	\$23.97	\$23.84	0.54%	0.31%	1.22%	1.19%	-0.65%	-0.11
4/10/2023	\$23.11	\$23.97	-3.65%	0.22%	-0.60%	-0.54%	-3.11%	-0.56
4/11/2023	\$23.40	\$23.11	1.25%	0.18%	0.15%	0.17%	1.07%	0.20
4/12/2023	\$22.90	\$23.40	-2.16%	-0.40%	-0.25%	-0.29%	-1.87%	-0.34
4/13/2023	\$23.62	\$22.90	3.10%	1.27%	2.13%	2.37%	0.72%	0.13
4/14/2023	\$23.32	\$23.62	-1.28%	-0.27%	-0.85%	-0.86%	-0.42%	-0.08
4/17/2023	\$24.69	\$23.32	5.71%	0.36%	0.95%	1.04%	4.67%	0.85
4/18/2023	\$24.56	\$24.69	-0.55%	0.07%	-0.50%	-0.45%	-0.10%	-0.02
4/19/2023	\$24.15	\$24.56	-1.66%	-0.05%	0.53%	0.58%	-2.25%	-0.41
4/20/2023	\$23.37	\$24.15	-3.28%	-0.58%	-0.81%	-0.85%	-2.43%	-0.44
4/21/2023	\$23.50	\$23.37	0.55%	0.06%	1.16%	1.24%	-0.69%	-0.13
4/24/2023	\$22.83	\$23.50	-2.89%	0.04%	-0.52%	-0.38%	-2.52%	-0.47
4/25/2023	\$21.90	\$22.83	-4.16%	-1.68%	-1.22%	-1.39%	-2.77%	-0.51
4/26/2023	\$21.59	\$21.90	-1.43%	-0.41%	-1.44%	-1.37%	-0.06%	-0.01
4/27/2023	\$22.67	\$21.59	4.88%	1.72%	0.40%	0.92%	3.96%	0.74
4/28/2023	\$23.22	\$22.67	2.40%	0.80%	0.73%	1.02%	1.37%	0.26
5/1/2023	\$23.34	\$23.22	0.52%	-0.07%	0.95%	0.97%	-0.46%	-0.09
5/2/2023	\$22.18	\$23.34	-5.10%	-1.23%	-1.43%	-1.67%	-3.43%	-0.64
5/3/2023	\$22.31	\$22.18	0.58%	-0.52%	0.70%	0.54%	0.05%	0.01
5/4/2023	\$22.34	\$22.31	0.13%	-0.69%	-0.12%	-0.29%	0.42%	0.08
5/5/2023	\$22.32	\$22.34	-0.09%	1.86%	1.65%	2.32%	-2.40%	-0.45
5/8/2023	\$23.12	\$22.32	3.52%	0.08%	-0.79%	-0.63%	4.15%	0.78
5/9/2023	\$26.58	\$23.12	13.95%	-0.39%	0.15%	0.06%	13.89%	2.60 ***
5/10/2023	\$27.02	\$26.58	1.64%	0.41%	0.40%	0.67%	0.97%	0.18
5/11/2023	\$27.88	\$27.02	3.13%	-0.26%	-0.76%	-0.70%	3.83%	0.71
5/12/2023	\$26.47	\$27.88	-5.19%	-0.19%	-0.33%	-0.25%	-4.94%	-0.91
5/15/2023	\$26.51	\$26.47	0.15%	0.50%	1.34%	1.53%	-1.38%	-0.26
5/16/2023	\$25.28	\$26.51	-4.75%	-0.81%	-2.47%	-2.30%	-2.45%	-0.45
5/17/2023	\$25.29	\$25.28	0.04%	1.23%	0.33%	0.92%	-0.88%	-0.16
5/18/2023	\$24.63	\$25.29	-2.64%	0.84%	-0.42%	0.12%	-2.76%	-0.52

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
5/19/2023	\$24.14	\$24.63	-2.01%	-0.19%	0.86%	0.70%	-2.71%	-0.51
5/22/2023	\$25.22	\$24.14	4.38%	0.19%	0.63%	0.65%	3.73%	0.70
5/23/2023	\$25.31	\$25.22	0.36%	-1.05%	0.04%	-0.42%	0.77%	0.15
5/24/2023	\$25.25	\$25.31	-0.24%	-0.80%	-1.31%	-1.36%	1.12%	0.21
5/25/2023	\$24.20	\$25.25	-4.25%	0.49%	-2.07%	-1.41%	-2.84%	-0.53
5/26/2023	\$23.57	\$24.20	-2.64%	1.25%	0.12%	0.63%	-3.27%	-0.62
5/30/2023	\$22.80	\$23.57	-3.32%	-0.02%	-0.65%	-0.55%	-2.77%	-0.52
5/31/2023	\$22.71	\$22.80	-0.40%	-0.57%	0.55%	0.21%	-0.60%	-0.11
6/1/2023	\$22.52	\$22.71	-0.84%	1.01%	0.24%	0.59%	-1.43%	-0.27
6/2/2023	\$23.23	\$22.52	3.10%	1.61%	1.74%	2.03%	1.07%	0.21
6/5/2023	\$22.87	\$23.23	-1.56%	-0.28%	0.40%	0.23%	-1.79%	-0.35
6/6/2023	\$23.31	\$22.87	1.91%	0.52%	-0.16%	-0.02%	1.93%	0.38
6/7/2023	\$24.01	\$23.31	2.96%	-0.20%	-0.33%	-0.41%	3.37%	0.66
6/8/2023	\$24.48	\$24.01	1.94%	0.52%	0.47%	0.57%	1.37%	0.27
6/9/2023	\$24.31	\$24.48	-0.70%	0.01%	-0.59%	-0.51%	-0.19%	-0.04
6/12/2023	\$24.67	\$24.31	1.47%	0.85%	0.83%	1.00%	0.47%	0.09
6/13/2023	\$25.59	\$24.67	3.66%	0.75%	1.19%	1.24%	2.42%	0.47
6/14/2023	\$25.33	\$25.59	-1.02%	0.01%	-0.78%	-0.68%	-0.34%	-0.07
6/15/2023	\$25.07	\$25.33	-1.03%	1.16%	1.22%	1.37%	-2.41%	-0.48
6/16/2023	\$24.60	\$25.07	-1.89%	-0.38%	-0.37%	-0.41%	-1.48%	-0.30
6/20/2023	\$24.74	\$24.60	0.57%	-0.54%	-0.51%	-0.59%	1.16%	0.23
6/21/2023	\$25.21	\$24.74	1.88%	-0.47%	-0.43%	-0.52%	2.40%	0.49
6/22/2023	\$25.46	\$25.21	0.99%	0.18%	0.09%	0.10%	0.89%	0.18
6/23/2023	\$24.83	\$25.46	-2.51%	-0.85%	-1.25%	-1.26%	-1.25%	-0.25
6/26/2023	\$23.61	\$24.83	-5.04%	-0.27%	-1.27%	-1.05%	-3.99%	-0.81
6/27/2023	\$24.00	\$23.61	1.64%	1.16%	-1.14%	-0.38%	2.01%	0.41
6/28/2023	\$23.77	\$24.00	-0.96%	0.05%	0.51%	0.32%	-1.28%	-0.26
6/29/2023	\$23.66	\$23.77	-0.46%	0.47%	-0.54%	-0.19%	-0.28%	-0.06
6/30/2023	\$24.52	\$23.66	3.57%	1.10%	0.85%	1.02%	2.55%	0.52
7/3/2023	\$25.32	\$24.52	3.21%	0.21%	-0.50%	-0.27%	3.48%	0.71
7/5/2023	\$22.04	\$25.32	-13.87%	-0.33%	0.30%	0.02%	-13.89%	-2.83 ***
7/6/2023	\$22.91	\$22.04	3.87%	-0.97%	-1.35%	-1.42%	5.29%	1.06
7/7/2023	\$22.15	\$22.91	-3.37%	0.00%	-0.85%	-0.56%	-2.81%	-0.56
7/10/2023	\$21.87	\$22.15	-1.27%	0.41%	1.81%	1.42%	-2.69%	-0.54
7/11/2023	\$22.10	\$21.87	1.05%	0.77%	0.10%	0.45%	0.60%	0.12
7/12/2023	\$22.12	\$22.10	0.09%	0.80%	0.87%	0.98%	-0.89%	-0.18
7/13/2023	\$21.92	\$22.12	-0.91%	0.93%	0.41%	0.74%	-1.65%	-0.33
7/14/2023	\$21.63	\$21.92	-1.33%	-0.30%	-0.19%	-0.25%	-1.08%	-0.22
7/17/2023	\$21.92	\$21.63	1.33%	0.45%	0.67%	0.66%	0.67%	0.14
7/18/2023	\$21.29	\$21.92	-2.92%	0.73%	0.33%	0.57%	-3.49%	-0.70
7/19/2023	\$21.42	\$21.29	0.61%	0.26%	0.39%	0.37%	0.24%	0.05
7/20/2023	\$21.37	\$21.42	-0.23%	-0.72%	-0.30%	-0.55%	0.32%	0.06
7/21/2023	\$21.60	\$21.37	1.07%	0.01%	0.68%	0.44%	0.63%	0.13
7/24/2023	\$20.63	\$21.60	-4.59%	0.33%	-1.49%	-0.83%	-3.76%	-0.76
7/25/2023	\$20.30	\$20.63	-1.61%	0.23%	-0.24%	-0.07%	-1.55%	-0.31

## Exhibit-18

## Cassava Common Stock Collective Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock	Market Index	Sector Index	Cassava Stock	Cassava Stock	t -statistic
	Cassava Stock	Prior Day	Logarithmic	Logarithmic	Logarithmic	Explained	Residual	
	Closing Price	Closing Price	Return	Return	Return	Return	Return	
7/26/2023	\$20.04	\$20.30	-1.29%	0.08%	-0.29%	-0.17%	-1.12%	-0.23
7/27/2023	\$20.41	\$20.04	1.83%	-0.75%	-0.66%	-0.78%	2.61%	0.53
7/28/2023	\$20.98	\$20.41	2.75%	1.06%	1.69%	1.65%	1.10%	0.22
7/31/2023	\$21.98	\$20.98	4.66%	0.32%	-0.09%	0.10%	4.55%	0.92
8/1/2023	\$21.84	\$21.98	-0.64%	-0.37%	-0.90%	-0.67%	0.03%	0.01
8/2/2023	\$20.98	\$21.84	-4.02%	-1.45%	-0.69%	-1.17%	-2.85%	-0.58
8/3/2023	\$20.84	\$20.98	-0.67%	-0.24%	-0.28%	-0.27%	-0.40%	-0.08
8/4/2023	\$20.18	\$20.84	-3.24%	-0.42%	0.42%	0.00%	-3.24%	-0.67
8/7/2023	\$18.95	\$20.18	-6.26%	0.75%	-0.56%	0.13%	-6.40%	-1.33
8/8/2023	\$18.78	\$18.95	-0.90%	-0.48%	0.65%	0.26%	-1.16%	-0.24
8/9/2023	\$18.66	\$18.78	-0.64%	-0.65%	0.36%	-0.06%	-0.58%	-0.12
8/10/2023	\$18.21	\$18.66	-2.44%	0.01%	0.28%	0.15%	-2.59%	-0.54
8/11/2023	\$17.92	\$18.21	-1.61%	-0.09%	0.39%	0.15%	-1.76%	-0.37
8/14/2023	\$18.29	\$17.92	2.04%	0.40%	-0.22%	0.00%	2.05%	0.43
8/15/2023	\$17.55	\$18.29	-4.13%	-1.19%	-0.27%	-0.91%	-3.22%	-0.68
8/16/2023	\$17.09	\$17.55	-2.66%	-0.79%	-1.21%	-1.38%	-1.27%	-0.27
8/17/2023	\$17.39	\$17.09	1.74%	-0.84%	-0.44%	-0.86%	2.60%	0.55
8/18/2023	\$17.08	\$17.39	-1.80%	0.06%	0.04%	-0.01%	-1.79%	-0.38
8/21/2023	\$16.78	\$17.08	-1.77%	0.55%	1.52%	1.34%	-3.12%	-0.66
8/22/2023	\$17.23	\$16.78	2.65%	-0.19%	0.05%	-0.17%	2.81%	0.59
8/23/2023	\$17.42	\$17.23	1.10%	1.10%	0.45%	0.81%	0.29%	0.06
8/24/2023	\$18.40	\$17.42	5.47%	-1.26%	-1.00%	-1.45%	6.93%	1.46
8/25/2023	\$18.26	\$18.40	-0.76%	0.70%	0.59%	0.72%	-1.48%	-0.31
8/28/2023	\$19.51	\$18.26	6.62%	0.71%	0.45%	0.57%	6.05%	1.28
8/29/2023	\$21.24	\$19.51	8.50%	1.31%	0.80%	1.18%	7.31%	1.54
8/30/2023	\$21.70	\$21.24	2.14%	0.38%	0.18%	0.29%	1.85%	0.39
8/31/2023	\$20.97	\$21.70	-3.42%	-0.11%	-0.86%	-0.73%	-2.69%	-0.58
9/1/2023	\$21.04	\$20.97	0.33%	0.28%	0.94%	0.81%	-0.48%	-0.10
9/5/2023	\$21.02	\$21.04	-0.10%	-0.61%	-1.41%	-1.47%	1.38%	0.30
9/6/2023	\$20.57	\$21.02	-2.16%	-0.64%	-0.55%	-0.83%	-1.33%	-0.29
9/7/2023	\$21.06	\$20.57	2.35%	-0.38%	-0.14%	-0.37%	2.73%	0.59
9/8/2023	\$21.11	\$21.06	0.24%	0.10%	0.37%	0.30%	-0.06%	-0.01
9/11/2023	\$20.89	\$21.11	-1.05%	0.65%	0.45%	0.65%	-1.70%	-0.37
9/12/2023	\$19.36	\$20.89	-7.61%	-0.48%	0.00%	-0.32%	-7.28%	-1.60
9/13/2023	\$19.53	\$19.36	0.87%	0.00%	-0.59%	-0.68%	1.56%	0.34
9/14/2023	\$19.68	\$19.53	0.77%	0.90%	0.42%	0.66%	0.10%	0.02
9/15/2023	\$19.41	\$19.68	-1.38%	-1.06%	-0.82%	-1.35%	-0.03%	-0.01
9/18/2023	\$18.38	\$19.41	-5.45%	-0.04%	-1.08%	-1.13%	-4.32%	-0.95
9/19/2023	\$18.20	\$18.38	-0.98%	-0.26%	0.36%	0.07%	-1.06%	-0.23
9/20/2023	\$18.49	\$18.20	1.58%	-0.83%	-0.71%	-1.15%	2.74%	0.60
9/21/2023	\$17.68	\$18.49	-4.48%	-1.70%	-1.02%	-1.79%	-2.69%	-0.59
9/22/2023	\$17.54	\$17.68	-0.80%	-0.19%	-0.34%	-0.67%	-0.12%	-0.03
9/25/2023	\$17.81	\$17.54	1.53%	0.34%	-0.30%	-0.33%	1.86%	0.44
9/26/2023	\$17.07	\$17.81	-4.24%	-1.42%	0.72%	-0.94%	-3.30%	-0.90
9/27/2023	\$16.95	\$17.07	-0.71%	0.11%	0.35%	0.01%	-0.71%	-0.20

**Exhibit-18****Cassava Common Stock Collective Event Study Results**

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Stock		Cassava Stock		Market Index	Sector Index	Cassava Stock	Cassava Stock	<i>t</i> -statistic
	Closing Price	Prior Day Closing Price	Logarithmic Return	Logarithmic Return	Logarithmic Return	Logarithmic Return	Explained Return	Residual Return	
9/28/2023	\$16.86	\$16.95	-0.53%	0.66%	-0.11%		0.00%	-0.54%	-0.15
9/29/2023	\$16.64	\$16.86	-1.31%	-0.26%	-0.47%		-0.95%	-0.37%	-0.11
10/2/2023	\$16.80	\$16.64	0.96%	-0.35%	-1.41%		-1.93%	2.88%	0.84
10/3/2023	\$17.54	\$16.80	4.31%	-1.45%	-0.93%		-2.21%	6.52%	1.91 *
10/4/2023	\$18.84	\$17.54	7.15%	0.70%	0.47%		0.59%	6.56%	1.91 *
10/5/2023	\$18.76	\$18.84	-0.43%	-0.07%	1.49%		1.07%	-1.50%	-0.43
10/6/2023	\$19.06	\$18.76	1.59%	1.14%	0.56%		1.10%	0.48%	0.14
10/9/2023	\$18.74	\$19.06	-1.69%	0.61%	-0.52%		-0.30%	-1.39%	-0.40
10/10/2023	\$19.35	\$18.74	3.20%	0.64%	0.77%		0.93%	2.28%	0.66
10/11/2023	\$18.43	\$19.35	-4.87%	0.38%	0.31%		0.31%	-5.18%	-1.51
10/12/2023	\$17.54	\$18.43	-4.95%	-0.85%	-1.58%		-2.35%	-2.60%	-0.76

**Sources:** Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*\*" indicates statistical significance at the 99% confidence level.

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
9/14/2020	0.14%	2.00%
9/15/2020	0.13%	2.00%
9/16/2020	0.12%	2.00%
9/17/2020	0.12%	2.00%
9/18/2020	0.13%	2.00%
9/21/2020	0.12%	2.00%
9/22/2020	0.12%	2.00%
9/23/2020	0.13%	2.00%
9/24/2020	0.12%	2.00%
9/25/2020	0.12%	2.00%
9/28/2020	0.12%	2.00%
9/29/2020	0.12%	2.00%
9/30/2020	0.12%	2.00%
10/1/2020	0.12%	2.00%
10/2/2020	0.12%	2.00%
10/5/2020	0.12%	2.00%
10/6/2020	0.14%	2.00%
10/7/2020	0.13%	2.00%
10/8/2020	0.13%	2.00%
10/9/2020	0.15%	2.00%
10/12/2020	0.15%	2.00%
10/13/2020	0.13%	2.00%
10/14/2020	0.13%	2.00%
10/15/2020	0.12%	2.00%
10/16/2020	0.12%	2.00%
10/19/2020	0.13%	2.00%
10/20/2020	0.13%	2.00%
10/21/2020	0.13%	2.00%
10/22/2020	0.13%	2.00%
10/23/2020	0.12%	2.00%
10/26/2020	0.12%	2.00%
10/27/2020	0.12%	2.00%
10/28/2020	0.12%	2.00%
10/29/2020	0.12%	2.00%
10/30/2020	0.13%	2.00%



**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
11/2/2020	0.13%	2.00%
11/3/2020	0.14%	2.00%
11/4/2020	0.12%	2.00%
11/5/2020	0.12%	2.00%
11/6/2020	0.12%	2.00%
11/9/2020	0.12%	2.00%
11/10/2020	0.12%	2.00%
11/11/2020	0.12%	2.00%
11/12/2020	0.13%	2.00%
11/13/2020	0.12%	2.00%
11/16/2020	0.12%	2.00%
11/17/2020	0.12%	2.00%
11/18/2020	0.11%	2.00%
11/19/2020	0.11%	2.00%
11/20/2020	0.11%	2.00%
11/23/2020	0.10%	2.00%
11/24/2020	0.11%	2.00%
11/25/2020	0.11%	2.00%
11/27/2020	0.11%	2.00%
11/30/2020	0.11%	2.00%
12/1/2020	0.12%	2.00%
12/2/2020	0.11%	2.00%
12/3/2020	0.10%	2.00%
12/4/2020	0.11%	2.00%
12/7/2020	0.10%	2.00%
12/8/2020	0.10%	2.00%
12/9/2020	0.10%	2.00%
12/10/2020	0.10%	2.00%
12/11/2020	0.10%	2.00%
12/14/2020	0.10%	2.00%
12/15/2020	0.09%	2.00%
12/16/2020	0.09%	2.00%
12/17/2020	0.09%	2.00%
12/18/2020	0.09%	2.00%
12/21/2020	0.09%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
12/22/2020	0.09%	2.00%
12/23/2020	0.09%	2.00%
12/24/2020	0.10%	2.00%
12/28/2020	0.11%	2.00%
12/29/2020	0.11%	2.00%
12/30/2020	0.12%	2.00%
12/31/2020	0.10%	2.00%
1/4/2021	0.10%	2.00%
1/5/2021	0.10%	2.00%
1/6/2021	0.11%	2.00%
1/7/2021	0.11%	2.00%
1/8/2021	0.10%	2.00%
1/11/2021	0.10%	2.00%
1/12/2021	0.11%	2.00%
1/13/2021	0.12%	2.00%
1/14/2021	0.10%	2.00%
1/15/2021	0.10%	2.00%
1/19/2021	0.10%	2.00%
1/20/2021	0.10%	2.00%
1/21/2021	0.10%	2.00%
1/22/2021	0.10%	2.00%
1/25/2021	0.10%	2.00%
1/26/2021	0.09%	2.00%
1/27/2021	0.09%	2.00%
1/28/2021	0.08%	2.00%
1/29/2021	0.10%	2.00%
2/1/2021	0.08%	2.00%
2/2/2021	0.08%	2.00%
2/3/2021	0.08%	2.00%
2/4/2021	0.07%	2.00%
2/5/2021	0.06%	2.00%
2/8/2021	0.07%	2.00%
2/9/2021	0.07%	2.00%
2/10/2021	0.07%	2.00%
2/11/2021	0.07%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
2/12/2021	0.06%	2.00%
2/16/2021	0.08%	2.00%
2/17/2021	0.07%	2.00%
2/18/2021	0.06%	2.00%
2/19/2021	0.07%	2.00%
2/22/2021	0.06%	2.00%
2/23/2021	0.08%	2.00%
2/24/2021	0.08%	2.00%
2/25/2021	0.09%	2.00%
2/26/2021	0.08%	2.00%
3/1/2021	0.08%	2.00%
3/2/2021	0.08%	2.00%
3/3/2021	0.08%	2.00%
3/4/2021	0.08%	2.00%
3/5/2021	0.08%	2.00%
3/8/2021	0.09%	2.00%
3/9/2021	0.10%	2.00%
3/10/2021	0.08%	2.00%
3/11/2021	0.08%	2.00%
3/12/2021	0.09%	2.00%
3/15/2021	0.08%	2.00%
3/16/2021	0.07%	2.00%
3/17/2021	0.07%	2.00%
3/18/2021	0.08%	2.00%
3/19/2021	0.07%	2.00%
3/22/2021	0.06%	2.00%
3/23/2021	0.08%	2.00%
3/24/2021	0.07%	2.00%
3/25/2021	0.07%	2.00%
3/26/2021	0.06%	2.00%
3/29/2021	0.06%	2.00%
3/30/2021	0.06%	2.00%
3/31/2021	0.07%	2.00%
4/1/2021	0.06%	2.00%
4/5/2021	0.06%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
4/6/2021	0.06%	2.00%
4/7/2021	0.06%	2.00%
4/8/2021	0.05%	2.00%
4/9/2021	0.06%	2.00%
4/12/2021	0.06%	2.00%
4/13/2021	0.06%	2.00%
4/14/2021	0.06%	2.00%
4/15/2021	0.06%	2.00%
4/16/2021	0.06%	2.00%
4/19/2021	0.08%	2.00%
4/20/2021	0.07%	2.00%
4/21/2021	0.07%	2.00%
4/22/2021	0.06%	2.00%
4/23/2021	0.07%	2.00%
4/26/2021	0.06%	2.00%
4/27/2021	0.06%	2.00%
4/28/2021	0.05%	2.00%
4/29/2021	0.05%	2.00%
4/30/2021	0.05%	2.00%
5/3/2021	0.06%	2.00%
5/4/2021	0.06%	2.00%
5/5/2021	0.06%	2.00%
5/6/2021	0.05%	2.00%
5/7/2021	0.05%	2.00%
5/10/2021	0.05%	2.00%
5/11/2021	0.05%	2.00%
5/12/2021	0.05%	2.00%
5/13/2021	0.05%	2.00%
5/14/2021	0.06%	2.00%
5/17/2021	0.06%	2.00%
5/18/2021	0.06%	2.00%
5/19/2021	0.05%	2.00%
5/20/2021	0.05%	2.00%
5/21/2021	0.04%	2.00%
5/24/2021	0.04%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
5/25/2021	0.04%	2.00%
5/26/2021	0.04%	2.00%
5/27/2021	0.04%	2.00%
5/28/2021	0.05%	2.00%
6/1/2021	0.04%	2.00%
6/2/2021	0.05%	2.00%
6/3/2021	0.04%	2.00%
6/4/2021	0.05%	2.00%
6/7/2021	0.05%	2.00%
6/8/2021	0.05%	2.00%
6/9/2021	0.05%	2.00%
6/10/2021	0.05%	2.00%
6/11/2021	0.05%	2.00%
6/14/2021	0.05%	2.00%
6/15/2021	0.08%	2.00%
6/16/2021	0.08%	2.00%
6/17/2021	0.08%	2.00%
6/18/2021	0.09%	2.00%
6/21/2021	0.09%	2.00%
6/22/2021	0.09%	2.00%
6/23/2021	0.08%	2.00%
6/24/2021	0.08%	2.00%
6/25/2021	0.09%	2.00%
6/28/2021	0.08%	2.00%
6/29/2021	0.08%	2.00%
6/30/2021	0.07%	2.00%
7/1/2021	0.09%	2.00%
7/2/2021	0.08%	2.00%
7/6/2021	0.07%	2.00%
7/7/2021	0.08%	2.00%
7/8/2021	0.07%	2.00%
7/9/2021	0.08%	2.00%
7/12/2021	0.08%	2.00%
7/13/2021	0.08%	2.00%
7/14/2021	0.08%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
7/15/2021	0.07%	2.00%
7/16/2021	0.08%	2.00%
7/19/2021	0.07%	2.00%
7/20/2021	0.08%	2.00%
7/21/2021	0.07%	2.00%
7/22/2021	0.07%	2.00%
7/23/2021	0.07%	2.00%
7/26/2021	0.08%	2.00%
7/27/2021	0.07%	2.00%
7/28/2021	0.07%	2.00%
7/29/2021	0.08%	2.00%
7/30/2021	0.07%	2.00%
8/2/2021	0.07%	2.00%
8/3/2021	0.07%	2.00%
8/4/2021	0.07%	2.00%
8/5/2021	0.08%	2.00%
8/6/2021	0.09%	2.00%
8/9/2021	0.08%	2.00%
8/10/2021	0.08%	2.00%
8/11/2021	0.08%	2.00%
8/12/2021	0.09%	2.00%
8/13/2021	0.08%	2.00%
8/16/2021	0.08%	2.00%
8/17/2021	0.07%	2.00%
8/18/2021	0.07%	2.00%
8/19/2021	0.06%	2.00%
8/20/2021	0.06%	2.00%
8/23/2021	0.07%	2.00%
8/24/2021	0.06%	2.00%
8/25/2021	0.07%	2.00%
8/26/2021	0.07%	2.00%
8/27/2021	0.07%	2.00%
8/30/2021	0.08%	2.00%
8/31/2021	0.07%	2.00%
9/1/2021	0.07%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
9/2/2021	0.07%	2.00%
9/3/2021	0.08%	2.00%
9/7/2021	0.08%	2.00%
9/8/2021	0.08%	2.00%
9/9/2021	0.07%	2.00%
9/10/2021	0.08%	2.00%
9/13/2021	0.07%	2.00%
9/14/2021	0.07%	2.00%
9/15/2021	0.07%	2.00%
9/16/2021	0.07%	2.00%
9/17/2021	0.07%	2.00%
9/20/2021	0.07%	2.00%
9/21/2021	0.07%	2.00%
9/22/2021	0.08%	2.00%
9/23/2021	0.08%	2.00%
9/24/2021	0.08%	2.00%
9/27/2021	0.09%	2.00%
9/28/2021	0.09%	2.00%
9/29/2021	0.09%	2.00%
9/30/2021	0.09%	2.00%
10/1/2021	0.09%	2.00%
10/4/2021	0.09%	2.00%
10/5/2021	0.09%	2.00%
10/6/2021	0.10%	2.00%
10/7/2021	0.10%	2.00%
10/8/2021	0.09%	2.00%
10/11/2021	0.09%	2.00%
10/12/2021	0.10%	2.00%
10/13/2021	0.11%	2.00%
10/14/2021	0.10%	2.00%
10/15/2021	0.12%	2.00%
10/18/2021	0.11%	2.00%
10/19/2021	0.11%	2.00%
10/20/2021	0.10%	2.00%
10/21/2021	0.12%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
10/22/2021	0.13%	2.00%
10/25/2021	0.14%	2.00%
10/26/2021	0.14%	2.00%
10/27/2021	0.12%	2.00%
10/28/2021	0.15%	2.00%
10/29/2021	0.15%	2.00%
11/1/2021	0.15%	2.00%
11/2/2021	0.15%	2.00%
11/3/2021	0.17%	2.00%
11/4/2021	0.14%	2.00%
11/5/2021	0.14%	2.00%
11/8/2021	0.16%	2.00%
11/9/2021	0.14%	2.00%
11/10/2021	0.17%	2.00%
11/11/2021	0.17%	2.00%
11/12/2021	0.17%	2.00%
11/15/2021	0.18%	2.00%
11/16/2021	0.17%	2.00%
11/17/2021	0.18%	2.00%
11/18/2021	0.18%	2.00%
11/19/2021	0.18%	2.00%
11/22/2021	0.20%	2.00%
11/23/2021	0.21%	2.00%
11/24/2021	0.24%	2.00%
11/26/2021	0.20%	2.00%
11/29/2021	0.21%	2.00%
11/30/2021	0.24%	2.00%
12/1/2021	0.25%	2.00%
12/2/2021	0.27%	2.00%
12/3/2021	0.26%	2.00%
12/6/2021	0.28%	2.00%
12/7/2021	0.31%	2.00%
12/8/2021	0.29%	2.00%
12/9/2021	0.28%	2.00%
12/10/2021	0.27%	2.00%



**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
12/13/2021	0.27%	2.00%
12/14/2021	0.26%	2.00%
12/15/2021	0.29%	2.00%
12/16/2021	0.26%	2.00%
12/17/2021	0.27%	2.00%
12/20/2021	0.27%	2.00%
12/21/2021	0.29%	2.00%
12/22/2021	0.28%	2.00%
12/23/2021	0.31%	2.00%
12/27/2021	0.33%	2.00%
12/28/2021	0.39%	2.00%
12/29/2021	0.38%	2.00%
12/30/2021	0.38%	2.00%
12/31/2021	0.39%	2.00%
1/3/2022	0.40%	2.00%
1/4/2022	0.38%	2.00%
1/5/2022	0.41%	2.00%
1/6/2022	0.45%	2.00%
1/7/2022	0.43%	2.00%
1/10/2022	0.46%	2.00%
1/11/2022	0.46%	2.00%
1/12/2022	0.48%	2.00%
1/13/2022	0.47%	2.00%
1/14/2022	0.51%	2.00%
1/18/2022	0.58%	2.00%
1/19/2022	0.57%	2.00%
1/20/2022	0.60%	2.00%
1/21/2022	0.58%	2.00%
1/24/2022	0.58%	2.00%
1/25/2022	0.65%	2.00%
1/26/2022	0.70%	2.00%
1/27/2022	0.75%	2.00%
1/28/2022	0.75%	2.00%
1/31/2022	0.78%	2.00%
2/1/2022	0.78%	2.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
2/2/2022	0.76%	2.00%
2/3/2022	0.78%	2.00%
2/4/2022	0.89%	2.00%
2/7/2022	0.88%	2.00%
2/8/2022	0.91%	2.00%
2/9/2022	0.91%	2.00%
2/10/2022	1.14%	2.00%
2/11/2022	1.07%	2.00%
2/14/2022	1.13%	2.00%
2/15/2022	1.11%	2.00%
2/16/2022	1.09%	2.00%
2/17/2022	1.05%	2.00%
2/18/2022	1.03%	2.00%
2/22/2022	1.17%	2.00%
2/23/2022	1.16%	2.00%
2/24/2022	1.08%	2.00%
2/25/2022	1.13%	2.00%
2/28/2022	1.01%	2.00%
3/1/2022	0.91%	2.00%
3/2/2022	1.06%	2.00%
3/3/2022	1.08%	2.00%
3/4/2022	1.05%	2.00%
3/7/2022	1.07%	2.00%
3/8/2022	1.12%	2.00%
3/9/2022	1.15%	2.00%
3/10/2022	1.19%	2.00%
3/11/2022	1.22%	2.00%
3/14/2022	1.28%	2.00%
3/15/2022	1.28%	2.00%
3/16/2022	1.35%	2.00%
3/17/2022	1.30%	2.25%
3/18/2022	1.29%	2.25%
3/21/2022	1.40%	2.25%
3/22/2022	1.59%	2.25%
3/23/2022	1.52%	2.25%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
3/24/2022	1.55%	2.25%
3/25/2022	1.67%	2.25%
3/28/2022	1.69%	2.25%
3/29/2022	1.67%	2.25%
3/30/2022	1.64%	2.25%
3/31/2022	1.63%	2.25%
4/1/2022	1.72%	2.25%
4/4/2022	1.72%	2.25%
4/5/2022	1.77%	2.25%
4/6/2022	1.79%	2.25%
4/7/2022	1.78%	2.25%
4/8/2022	1.81%	2.25%
4/11/2022	1.85%	2.25%
4/12/2022	1.77%	2.25%
4/13/2022	1.78%	2.25%
4/14/2022	1.84%	2.25%
4/18/2022	1.84%	2.25%
4/19/2022	1.94%	2.25%
4/20/2022	1.93%	2.25%
4/21/2022	2.01%	2.25%
4/22/2022	2.06%	2.25%
4/25/2022	2.03%	2.25%
4/26/2022	1.99%	2.25%
4/27/2022	1.97%	2.25%
4/28/2022	2.04%	2.25%
4/29/2022	2.10%	2.25%
5/2/2022	2.10%	2.25%
5/3/2022	2.16%	2.25%
5/4/2022	2.07%	2.25%
5/5/2022	2.08%	2.75%
5/6/2022	2.08%	2.75%
5/9/2022	1.99%	2.75%
5/10/2022	2.01%	2.75%
5/11/2022	1.99%	2.75%
5/12/2022	1.96%	2.75%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
5/13/2022	2.04%	2.75%
5/16/2022	2.07%	2.75%
5/17/2022	2.16%	2.75%
5/18/2022	2.16%	2.75%
5/19/2022	2.11%	2.75%
5/20/2022	2.07%	2.75%
5/23/2022	2.09%	2.75%
5/24/2022	2.02%	2.75%
5/25/2022	2.01%	2.75%
5/26/2022	1.99%	2.75%
5/27/2022	2.01%	2.75%
5/31/2022	2.08%	2.75%
6/1/2022	2.16%	2.75%
6/2/2022	2.15%	2.75%
6/3/2022	2.18%	2.75%
6/6/2022	2.23%	2.75%
6/7/2022	2.26%	2.75%
6/8/2022	2.29%	2.75%
6/9/2022	2.35%	2.75%
6/10/2022	2.58%	2.75%
6/13/2022	2.89%	2.75%
6/14/2022	3.15%	2.75%
6/15/2022	2.93%	2.75%
6/16/2022	2.88%	3.50%
6/17/2022	2.86%	3.50%
6/21/2022	2.92%	3.50%
6/22/2022	2.79%	3.50%
6/23/2022	2.78%	3.50%
6/24/2022	2.83%	3.50%
6/27/2022	2.89%	3.50%
6/28/2022	2.88%	3.50%
6/29/2022	2.88%	3.50%
6/30/2022	2.80%	3.50%
7/1/2022	2.79%	3.50%
7/5/2022	2.77%	3.50%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
7/6/2022	2.82%	3.50%
7/7/2022	2.87%	3.50%
7/8/2022	2.96%	3.50%
7/11/2022	2.97%	3.50%
7/12/2022	3.07%	3.50%
7/13/2022	3.21%	3.50%
7/14/2022	3.16%	3.50%
7/15/2022	3.12%	3.50%
7/18/2022	3.13%	3.50%
7/19/2022	3.18%	3.50%
7/20/2022	3.18%	3.50%
7/21/2022	3.11%	3.50%
7/22/2022	3.01%	3.50%
7/25/2022	3.07%	3.50%
7/26/2022	3.06%	3.50%
7/27/2022	3.00%	3.50%
7/28/2022	2.93%	4.25%
7/29/2022	2.98%	4.25%
8/1/2022	2.98%	4.25%
8/2/2022	3.09%	4.25%
8/3/2022	3.14%	4.25%
8/4/2022	3.11%	4.25%
8/5/2022	3.29%	4.25%
8/8/2022	3.30%	4.25%
8/9/2022	3.33%	4.25%
8/10/2022	3.26%	4.25%
8/11/2022	3.25%	4.25%
8/12/2022	3.26%	4.25%
8/15/2022	3.23%	4.25%
8/16/2022	3.26%	4.25%
8/17/2022	3.27%	4.25%
8/18/2022	3.24%	4.25%
8/19/2022	3.26%	4.25%
8/22/2022	3.32%	4.25%
8/23/2022	3.29%	4.25%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
8/24/2022	3.35%	4.25%
8/25/2022	3.33%	4.25%
8/26/2022	3.36%	4.25%
8/29/2022	3.43%	4.25%
8/30/2022	3.48%	4.25%
8/31/2022	3.50%	4.25%
9/1/2022	3.51%	4.25%
9/2/2022	3.47%	4.25%
9/6/2022	3.61%	4.25%
9/7/2022	3.60%	4.25%
9/8/2022	3.60%	4.25%
9/9/2022	3.67%	4.25%
9/12/2022	3.70%	4.25%
9/13/2022	3.92%	4.25%
9/14/2022	3.95%	4.25%
9/15/2022	4.00%	4.25%
9/16/2022	3.96%	4.25%
9/19/2022	4.05%	4.25%
9/20/2022	4.03%	4.25%
9/21/2022	4.08%	4.25%
9/22/2022	4.08%	5.00%
9/23/2022	4.15%	5.00%
9/26/2022	4.17%	5.00%
9/27/2022	4.16%	5.00%
9/28/2022	3.99%	5.00%
9/29/2022	3.98%	5.00%
9/30/2022	4.05%	5.00%
10/3/2022	4.01%	5.00%
10/4/2022	4.15%	5.00%
10/5/2022	4.14%	5.00%
10/6/2022	4.19%	5.00%
10/7/2022	4.24%	5.00%
10/10/2022	4.24%	5.00%
10/11/2022	4.28%	5.00%
10/12/2022	4.28%	5.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
10/13/2022	4.46%	5.00%
10/14/2022	4.50%	5.00%
10/17/2022	4.50%	5.00%
10/18/2022	4.50%	5.00%
10/19/2022	4.60%	5.00%
10/20/2022	4.66%	5.00%
10/21/2022	4.58%	5.00%
10/24/2022	4.61%	5.00%
10/25/2022	4.60%	5.00%
10/26/2022	4.54%	5.00%
10/27/2022	4.50%	5.00%
10/28/2022	4.55%	5.00%
10/31/2022	4.66%	5.00%
11/1/2022	4.75%	5.00%
11/2/2022	4.76%	5.00%
11/3/2022	4.78%	5.75%
11/4/2022	4.76%	5.75%
11/7/2022	4.80%	5.75%
11/8/2022	4.77%	5.75%
11/9/2022	4.75%	5.75%
11/10/2022	4.59%	5.75%
11/11/2022	4.59%	5.75%
11/14/2022	4.63%	5.75%
11/15/2022	4.60%	5.75%
11/16/2022	4.62%	5.75%
11/17/2022	4.68%	5.75%
11/18/2022	4.74%	5.75%
11/21/2022	4.75%	5.75%
11/22/2022	4.79%	5.75%
11/23/2022	4.75%	5.75%
11/25/2022	4.76%	5.75%
11/28/2022	4.76%	5.75%
11/29/2022	4.78%	5.75%
11/30/2022	4.74%	5.75%
12/1/2022	4.66%	5.75%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
12/2/2022	4.69%	5.75%
12/5/2022	4.77%	5.75%
12/6/2022	4.73%	5.75%
12/7/2022	4.67%	5.75%
12/8/2022	4.71%	5.75%
12/9/2022	4.72%	5.75%
12/12/2022	4.75%	5.75%
12/13/2022	4.64%	5.75%
12/14/2022	4.64%	5.75%
12/15/2022	4.65%	6.25%
12/16/2022	4.61%	6.25%
12/19/2022	4.64%	6.25%
12/20/2022	4.64%	6.25%
12/21/2022	4.60%	6.25%
12/22/2022	4.64%	6.25%
12/23/2022	4.66%	6.25%
12/27/2022	4.75%	6.25%
12/28/2022	4.71%	6.25%
12/29/2022	4.71%	6.25%
12/30/2022	4.73%	6.25%
1/3/2023	4.72%	6.25%
1/4/2023	4.71%	6.25%
1/5/2023	4.78%	6.25%
1/6/2023	4.71%	6.25%
1/9/2023	4.69%	6.25%
1/10/2023	4.74%	6.25%
1/11/2023	4.73%	6.25%
1/12/2023	4.66%	6.25%
1/13/2023	4.69%	6.25%
1/17/2023	4.67%	6.25%
1/18/2023	4.63%	6.25%
1/19/2023	4.65%	6.25%
1/20/2023	4.68%	6.25%
1/23/2023	4.70%	6.25%
1/24/2023	4.70%	6.25%



**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
1/25/2023	4.67%	6.25%
1/26/2023	4.68%	6.25%
1/27/2023	4.68%	6.25%
1/30/2023	4.71%	6.25%
1/31/2023	4.68%	6.25%
2/1/2023	4.66%	6.25%
2/2/2023	4.64%	6.50%
2/3/2023	4.79%	6.50%
2/6/2023	4.85%	6.50%
2/7/2023	4.88%	6.50%
2/8/2023	4.87%	6.50%
2/9/2023	4.88%	6.50%
2/10/2023	4.89%	6.50%
2/13/2023	4.91%	6.50%
2/14/2023	4.99%	6.50%
2/15/2023	4.96%	6.50%
2/16/2023	4.99%	6.50%
2/17/2023	5.00%	6.50%
2/21/2023	5.07%	6.50%
2/22/2023	5.07%	6.50%
2/23/2023	5.03%	6.50%
2/24/2023	5.05%	6.50%
2/27/2023	5.03%	6.50%
2/28/2023	5.02%	6.50%
3/1/2023	5.06%	6.50%
3/2/2023	5.04%	6.50%
3/3/2023	5.03%	6.50%
3/6/2023	5.05%	6.50%
3/7/2023	5.22%	6.50%
3/8/2023	5.25%	6.50%
3/9/2023	5.18%	6.50%
3/10/2023	4.90%	6.50%
3/13/2023	4.30%	6.50%
3/14/2023	4.45%	6.50%
3/15/2023	4.19%	6.50%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
3/16/2023	4.49%	6.50%
3/17/2023	4.26%	6.50%
3/20/2023	4.34%	6.50%
3/21/2023	4.68%	6.50%
3/22/2023	4.56%	6.50%
3/23/2023	4.38%	6.75%
3/24/2023	4.32%	6.75%
3/27/2023	4.51%	6.75%
3/28/2023	4.55%	6.75%
3/29/2023	4.59%	6.75%
3/30/2023	4.63%	6.75%
3/31/2023	4.64%	6.75%
4/3/2023	4.60%	6.75%
4/4/2023	4.50%	6.75%
4/5/2023	4.43%	6.75%
4/6/2023	4.51%	6.75%
4/10/2023	4.65%	6.75%
4/11/2023	4.67%	6.75%
4/12/2023	4.64%	6.75%
4/13/2023	4.66%	6.75%
4/14/2023	4.77%	6.75%
4/17/2023	4.80%	6.75%
4/18/2023	4.81%	6.75%
4/19/2023	4.84%	6.75%
4/20/2023	4.77%	6.75%
4/21/2023	4.78%	6.75%
4/24/2023	4.76%	6.75%
4/25/2023	4.60%	6.75%
4/26/2023	4.64%	6.75%
4/27/2023	4.78%	6.75%
4/28/2023	4.80%	6.75%
5/1/2023	4.86%	6.75%
5/2/2023	4.74%	6.75%
5/3/2023	4.70%	6.75%
5/4/2023	4.59%	7.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
5/5/2023	4.73%	7.00%
5/8/2023	4.79%	7.00%
5/9/2023	4.81%	7.00%
5/10/2023	4.70%	7.00%
5/11/2023	4.70%	7.00%
5/12/2023	4.75%	7.00%
5/15/2023	4.73%	7.00%
5/16/2023	4.88%	7.00%
5/17/2023	4.92%	7.00%
5/18/2023	5.02%	7.00%
5/19/2023	5.02%	7.00%
5/22/2023	5.07%	7.00%
5/23/2023	5.06%	7.00%
5/24/2023	5.12%	7.00%
5/25/2023	5.24%	7.00%
5/26/2023	5.25%	7.00%
5/30/2023	5.22%	7.00%
5/31/2023	5.18%	7.00%
6/1/2023	5.11%	7.00%
6/2/2023	5.22%	7.00%
6/5/2023	5.17%	7.00%
6/6/2023	5.20%	7.00%
6/7/2023	5.16%	7.00%
6/8/2023	5.12%	7.00%
6/9/2023	5.17%	7.00%
6/12/2023	5.18%	7.00%
6/13/2023	5.26%	7.00%
6/14/2023	5.27%	7.00%
6/15/2023	5.21%	7.00%
6/16/2023	5.24%	7.00%
6/20/2023	5.24%	7.00%
6/21/2023	5.25%	7.00%
6/22/2023	5.29%	7.00%
6/23/2023	5.25%	7.00%
6/26/2023	5.27%	7.00%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
6/27/2023	5.33%	7.00%
6/28/2023	5.32%	7.00%
6/29/2023	5.41%	7.00%
6/30/2023	5.40%	7.00%
7/3/2023	5.43%	7.00%
7/5/2023	5.40%	7.00%
7/6/2023	5.44%	7.00%
7/7/2023	5.41%	7.00%
7/10/2023	5.38%	7.00%
7/11/2023	5.44%	7.00%
7/12/2023	5.35%	7.00%
7/13/2023	5.27%	7.00%
7/14/2023	5.34%	7.00%
7/17/2023	5.33%	7.00%
7/18/2023	5.32%	7.00%
7/19/2023	5.32%	7.00%
7/20/2023	5.35%	7.00%
7/21/2023	5.35%	7.00%
7/24/2023	5.38%	7.00%
7/25/2023	5.38%	7.00%
7/26/2023	5.37%	7.00%
7/27/2023	5.40%	7.25%
7/28/2023	5.37%	7.25%
7/31/2023	5.37%	7.25%
8/1/2023	5.38%	7.25%
8/2/2023	5.36%	7.25%
8/3/2023	5.37%	7.25%
8/4/2023	5.33%	7.25%
8/7/2023	5.30%	7.25%
8/8/2023	5.35%	7.25%
8/9/2023	5.35%	7.25%
8/10/2023	5.33%	7.25%
8/11/2023	5.36%	7.25%
8/14/2023	5.37%	7.25%
8/15/2023	5.36%	7.25%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
8/16/2023	5.37%	7.25%
8/17/2023	5.36%	7.25%
8/18/2023	5.35%	7.25%
8/21/2023	5.37%	7.25%
8/22/2023	5.39%	7.25%
8/23/2023	5.35%	7.25%
8/24/2023	5.39%	7.25%
8/25/2023	5.44%	7.25%
8/28/2023	5.44%	7.25%
8/29/2023	5.37%	7.25%
8/30/2023	5.39%	7.25%
8/31/2023	5.37%	7.25%
9/1/2023	5.36%	7.25%
9/5/2023	5.42%	7.25%
9/6/2023	5.44%	7.25%
9/7/2023	5.40%	7.25%
9/8/2023	5.42%	7.25%
9/11/2023	5.40%	7.25%
9/12/2023	5.42%	7.25%
9/13/2023	5.42%	7.25%
9/14/2023	5.42%	7.25%
9/15/2023	5.43%	7.25%
9/18/2023	5.44%	7.25%
9/19/2023	5.45%	7.25%
9/20/2023	5.47%	7.25%
9/21/2023	5.46%	7.25%
9/22/2023	5.46%	7.25%
9/25/2023	5.45%	7.25%
9/26/2023	5.45%	7.25%
9/27/2023	5.49%	7.25%
9/28/2023	5.46%	7.25%
9/29/2023	5.46%	7.25%
10/2/2023	5.49%	7.25%
10/3/2023	5.49%	7.25%
10/4/2023	5.42%	7.25%

**Exhibit-19****Interest Rates**

14 September 2020 through 12 October 2023

<b>Date</b>	<b>1-Year Treasury Rate</b>	<b>Broker-Dealer Index Rate</b>
10/5/2023	5.39%	7.25%
10/6/2023	5.43%	7.25%
10/9/2023	5.43%	7.25%
10/10/2023	5.37%	7.25%
10/11/2023	5.38%	7.25%
10/12/2023	5.43%	7.25%

**Sources:** Bloomberg (Broker-Call Money Rate Index) and Federal Reserve Economic Data (1-Year Treasury Rate).

**Exhibit-20****Cassava Synthetic Stock Prices Derived from Cassava Options**

15 January 2020 through 10 January 2024

<b>Date</b>	<b>Cassava Synthetic Stock Bid Price</b>	<b>Cassava Synthetic Stock Ask Price</b>	<b>Cassava Synthetic Stock Price</b>	<b>Cassava Synthetic Stock Logarithmic Return</b>
1/15/2020	\$5.66	\$10.20	\$7.93	
1/16/2020	\$5.24	\$10.96	\$8.10	2.09%
1/17/2020	\$4.85	\$10.98	\$7.91	-2.36%
1/21/2020	\$5.03	\$10.86	\$7.94	0.42%
1/22/2020	\$5.16	\$10.64	\$7.90	-0.55%
1/23/2020	\$4.78	\$10.70	\$7.74	-2.10%
1/24/2020	\$5.98	\$7.81	\$6.89	-11.57%
1/27/2020	\$6.05	\$7.84	\$6.94	0.77%
1/28/2020	\$7.34	\$9.54	\$8.44	19.51%
1/29/2020	\$7.18	\$8.89	\$8.03	-4.94%
1/30/2020	\$6.67	\$8.72	\$7.70	-4.31%
1/31/2020	\$6.82	\$8.67	\$7.74	0.62%
2/3/2020	\$6.88	\$8.73	\$7.81	0.84%
2/4/2020	\$7.07	\$9.17	\$8.12	3.94%
2/5/2020	\$7.20	\$9.08	\$8.14	0.24%
2/6/2020	\$7.12	\$9.02	\$8.07	-0.90%
2/7/2020	\$6.72	\$8.56	\$7.64	-5.50%
2/10/2020	\$6.88	\$8.36	\$7.62	-0.20%
2/11/2020	\$6.96	\$8.50	\$7.73	1.38%
2/12/2020	\$6.94	\$8.28	\$7.61	-1.53%
2/13/2020	\$6.78	\$8.22	\$7.50	-1.49%
2/14/2020	\$6.32	\$8.00	\$7.16	-4.59%
2/18/2020	\$6.30	\$7.88	\$7.09	-1.02%
2/19/2020	\$6.17	\$7.47	\$6.82	-3.82%
2/20/2020	\$6.30	\$7.62	\$6.96	1.97%
2/21/2020	\$6.82	\$8.30	\$7.56	8.28%
2/24/2020	\$5.65	\$8.52	\$7.09	-6.47%
2/25/2020	\$5.54	\$8.50	\$7.02	-0.95%
2/26/2020	\$5.13	\$7.70	\$6.41	-9.03%
2/27/2020	\$4.90	\$7.16	\$6.03	-6.11%
2/28/2020	\$4.53	\$6.98	\$5.76	-4.71%
3/2/2020	\$5.41	\$7.26	\$6.33	9.53%
3/3/2020	\$4.98	\$7.22	\$6.10	-3.75%
3/4/2020	\$5.01	\$7.23	\$6.12	0.36%
3/5/2020	\$5.05	\$7.35	\$6.20	1.30%
3/6/2020	\$4.65	\$7.46	\$6.06	-2.37%
3/9/2020	\$3.39	\$7.06	\$5.22	-14.80%
3/10/2020	\$3.72	\$6.09	\$4.91	-6.22%
3/11/2020	\$2.64	\$5.97	\$4.30	-13.14%
3/12/2020	\$1.68	\$6.06	\$3.87	-10.57%
3/13/2020	\$2.48	\$6.20	\$4.34	11.47%
3/16/2020	\$1.72	\$6.94	\$4.33	-0.29%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
3/17/2020	\$2.51	\$6.37	\$4.44	2.53%
3/18/2020	\$1.59	\$6.62	\$4.10	-7.90%
3/19/2020	\$2.28	\$7.01	\$4.64	12.33%
3/20/2020	\$2.36	\$6.01	\$4.18	-10.38%
3/23/2020	\$1.76	\$6.33	\$4.04	-3.41%
3/24/2020	\$2.65	\$6.21	\$4.43	9.11%
3/25/2020	\$2.68	\$6.78	\$4.73	6.54%
3/26/2020	\$2.69	\$5.84	\$4.26	-10.37%
3/27/2020	\$2.80	\$6.16	\$4.48	4.97%
3/30/2020	\$2.75	\$5.80	\$4.27	-4.69%
3/31/2020	\$2.67	\$5.94	\$4.31	0.74%
4/1/2020	\$2.76	\$5.81	\$4.28	-0.51%
4/2/2020	\$3.24	\$6.68	\$4.96	14.66%
4/3/2020	\$3.09	\$6.50	\$4.80	-3.36%
4/6/2020	\$3.20	\$6.77	\$4.98	3.81%
4/7/2020	\$3.31	\$6.24	\$4.78	-4.27%
4/8/2020	\$3.33	\$6.86	\$5.09	6.42%
4/9/2020	\$2.83	\$6.63	\$4.73	-7.32%
4/13/2020	\$3.74	\$7.23	\$5.49	14.77%
4/14/2020	\$4.15	\$7.30	\$5.73	4.27%
4/15/2020	\$4.11	\$6.84	\$5.48	-4.43%
4/16/2020	\$4.23	\$7.09	\$5.66	3.27%
4/17/2020	\$4.20	\$7.08	\$5.64	-0.39%
4/20/2020	\$3.93	\$7.19	\$5.56	-1.39%
4/21/2020	\$3.91	\$6.81	\$5.36	-3.64%
4/22/2020	\$4.01	\$6.92	\$5.47	1.93%
4/23/2020	\$5.86	\$8.51	\$7.18	27.33%
4/24/2020	\$5.83	\$8.38	\$7.10	-1.15%
4/27/2020	\$5.91	\$8.65	\$7.28	2.49%
4/28/2020	\$5.60	\$8.67	\$7.13	-2.02%
4/29/2020	\$6.43	\$9.17	\$7.80	8.91%
4/30/2020	\$6.13	\$8.68	\$7.40	-5.21%
5/1/2020	\$6.18	\$8.50	\$7.34	-0.84%
5/4/2020	\$6.50	\$8.98	\$7.74	5.27%
5/5/2020	\$6.55	\$8.99	\$7.77	0.40%
5/6/2020	\$6.43	\$8.91	\$7.67	-1.32%
5/7/2020	\$6.59	\$8.66	\$7.63	-0.52%
5/8/2020	\$7.97	\$9.85	\$8.91	15.52%
5/11/2020	\$8.34	\$10.62	\$9.48	6.18%
5/12/2020	\$5.92	\$10.67	\$8.30	-13.32%
5/13/2020	\$6.60	\$8.82	\$7.71	-7.34%
5/14/2020	\$6.00	\$9.82	\$7.91	2.58%



**Exhibit-20****Cassava Synthetic Stock Prices Derived from Cassava Options**

15 January 2020 through 10 January 2024

<b>Date</b>	<b>Cassava Synthetic Stock Bid Price</b>	<b>Cassava Synthetic Stock Ask Price</b>	<b>Cassava Synthetic Stock Price</b>	<b>Cassava Synthetic Stock Logarithmic Return</b>
5/15/2020	\$0.96	\$3.16	\$2.06	-134.56%
5/18/2020	\$1.17	\$3.40	\$2.28	10.29%
5/19/2020	\$1.00	\$3.46	\$2.23	-2.30%
5/20/2020	\$0.89	\$3.57	\$2.23	-0.02%
5/21/2020	\$0.82	\$3.40	\$2.11	-5.56%
5/22/2020	\$0.84	\$3.34	\$2.09	-0.99%
5/26/2020	\$0.88	\$3.32	\$2.10	0.72%
5/27/2020	\$0.88	\$3.27	\$2.08	-1.38%
5/28/2020	\$0.92	\$3.25	\$2.09	0.64%
5/29/2020	\$0.78	\$3.63	\$2.20	5.32%
6/1/2020	\$0.87	\$3.90	\$2.38	7.85%
6/2/2020	\$0.92	\$3.17	\$2.04	-15.48%
6/3/2020	\$2.35	\$4.56	\$3.46	52.68%
6/4/2020	\$1.45	\$3.69	\$2.57	-29.58%
6/5/2020	\$1.29	\$4.10	\$2.69	4.57%
6/8/2020	\$1.23	\$3.96	\$2.60	-3.63%
6/9/2020	\$1.49	\$4.28	\$2.88	10.53%
6/10/2020	\$1.47	\$3.91	\$2.69	-6.96%
6/11/2020	\$1.25	\$4.18	\$2.72	0.96%
6/12/2020	\$1.38	\$3.81	\$2.60	-4.45%
6/15/2020	\$0.74	\$4.72	\$2.73	4.95%
6/16/2020	\$1.36	\$4.26	\$2.81	2.92%
6/17/2020	\$1.34	\$4.24	\$2.79	-0.77%
6/18/2020	\$1.30	\$3.99	\$2.64	-5.32%
6/19/2020	\$1.29	\$4.05	\$2.67	1.07%
6/22/2020	\$1.09	\$4.55	\$2.82	5.27%
6/23/2020	\$1.15	\$4.30	\$2.73	-3.29%
6/24/2020	\$1.61	\$5.07	\$3.34	20.39%
6/25/2020	\$1.62	\$4.75	\$3.18	-4.91%
6/26/2020	\$1.60	\$5.23	\$3.41	6.95%
6/29/2020	\$1.58	\$4.43	\$3.01	-12.66%
6/30/2020	\$1.64	\$4.80	\$3.22	6.90%
7/1/2020	\$1.51	\$4.67	\$3.09	-4.10%
7/2/2020	\$1.46	\$4.60	\$3.03	-2.03%
7/6/2020	\$1.56	\$4.67	\$3.12	2.79%
7/7/2020	\$1.65	\$4.49	\$3.07	-1.57%
7/8/2020	\$2.07	\$4.21	\$3.14	2.33%
7/9/2020	\$2.06	\$4.50	\$3.28	4.44%
7/10/2020	\$2.49	\$4.21	\$3.35	2.07%
7/13/2020	\$3.04	\$4.54	\$3.79	12.35%
7/14/2020	\$2.86	\$4.31	\$3.58	-5.60%
7/15/2020	\$2.35	\$4.36	\$3.36	-6.56%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
7/16/2020	\$1.91	\$5.13	\$3.52	4.85%
7/17/2020	\$1.93	\$4.73	\$3.33	-5.55%
7/20/2020	\$1.66	\$4.80	\$3.23	-3.05%
7/21/2020	\$2.07	\$4.61	\$3.34	3.32%
7/22/2020	\$1.30	\$5.39	\$3.34	0.08%
7/23/2020	\$2.79	\$3.78	\$3.29	-1.77%
7/24/2020	\$2.55	\$4.40	\$3.47	5.49%
7/27/2020	\$3.00	\$3.91	\$3.46	-0.36%
7/28/2020	\$2.93	\$3.84	\$3.39	-2.15%
7/29/2020	\$2.84	\$3.82	\$3.33	-1.75%
7/30/2020	\$2.71	\$3.65	\$3.18	-4.56%
7/31/2020	\$2.70	\$3.70	\$3.20	0.79%
8/3/2020	\$2.70	\$3.73	\$3.21	0.34%
8/4/2020	\$2.72	\$3.82	\$3.27	1.58%
8/5/2020	\$2.61	\$3.99	\$3.30	1.02%
8/6/2020	\$2.44	\$3.50	\$2.97	-10.48%
8/7/2020	\$2.45	\$3.85	\$3.15	5.99%
8/10/2020	\$2.60	\$4.37	\$3.48	9.93%
8/11/2020	\$2.51	\$3.60	\$3.05	-13.16%
8/12/2020	\$2.92	\$4.06	\$3.49	13.24%
8/13/2020	\$2.80	\$3.85	\$3.33	-4.70%
8/14/2020	\$3.01	\$3.94	\$3.48	4.42%
8/17/2020	\$3.09	\$4.12	\$3.61	3.65%
8/18/2020	\$3.01	\$3.87	\$3.44	-4.74%
8/19/2020	\$3.01	\$4.27	\$3.64	5.60%
8/20/2020	\$2.67	\$4.34	\$3.50	-3.73%
8/21/2020	\$2.53	\$4.14	\$3.34	-4.85%
8/24/2020	\$2.38	\$3.62	\$3.00	-10.71%
8/25/2020	\$2.60	\$3.99	\$3.29	9.32%
8/26/2020	\$2.62	\$4.00	\$3.31	0.63%
8/27/2020	\$2.55	\$3.61	\$3.08	-7.36%
8/28/2020	\$2.19	\$4.05	\$3.12	1.34%
8/31/2020	\$2.66	\$3.74	\$3.20	2.49%
9/1/2020	\$2.24	\$3.95	\$3.09	-3.31%
9/2/2020	\$2.16	\$4.03	\$3.10	0.05%
9/3/2020	\$2.56	\$3.53	\$3.05	-1.62%
9/4/2020	\$2.28	\$3.76	\$3.02	-0.77%
9/8/2020	\$2.53	\$3.66	\$3.10	2.48%
9/9/2020	\$2.68	\$3.68	\$3.18	2.73%
9/10/2020	\$2.63	\$3.59	\$3.11	-2.28%
9/11/2020	\$1.51	\$5.03	\$3.27	4.94%
9/14/2020	\$6.79	\$8.33	\$7.56	83.87%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
9/15/2020	\$6.05	\$7.93	\$6.99	-7.92%
9/16/2020	\$6.08	\$7.72	\$6.90	-1.25%
9/17/2020	\$5.99	\$7.85	\$6.92	0.31%
9/18/2020	\$8.85	\$10.79	\$9.82	34.93%
9/21/2020	\$8.53	\$10.58	\$9.56	-2.70%
9/22/2020	\$9.00	\$11.32	\$10.16	6.18%
9/23/2020	\$8.27	\$10.62	\$9.45	-7.31%
9/24/2020	\$8.28	\$10.47	\$9.37	-0.78%
9/25/2020	\$10.14	\$12.16	\$11.15	17.37%
9/28/2020	\$9.82	\$11.92	\$10.87	-2.55%
9/29/2020	\$10.14	\$12.12	\$11.13	2.35%
9/30/2020	\$10.18	\$12.21	\$11.20	0.61%
10/1/2020	\$10.05	\$12.21	\$11.13	-0.61%
10/2/2020	\$9.46	\$11.46	\$10.46	-6.21%
10/5/2020	\$10.29	\$12.33	\$11.31	7.83%
10/6/2020	\$10.05	\$12.10	\$11.08	-2.08%
10/7/2020	\$10.88	\$12.69	\$11.78	6.19%
10/8/2020	\$11.05	\$12.89	\$11.97	1.58%
10/9/2020	\$10.63	\$12.62	\$11.62	-2.97%
10/12/2020	\$10.03	\$12.29	\$11.16	-4.06%
10/13/2020	\$10.01	\$11.96	\$10.99	-1.57%
10/14/2020	\$9.81	\$11.76	\$10.79	-1.83%
10/15/2020	\$9.70	\$11.54	\$10.62	-1.54%
10/16/2020	\$9.29	\$11.27	\$10.28	-3.27%
10/19/2020	\$8.63	\$10.69	\$9.66	-6.20%
10/20/2020	\$8.22	\$10.22	\$9.22	-4.64%
10/21/2020	\$7.81	\$9.72	\$8.76	-5.12%
10/22/2020	\$7.62	\$9.67	\$8.65	-1.35%
10/23/2020	\$8.14	\$10.22	\$9.18	6.02%
10/26/2020	\$7.91	\$9.85	\$8.88	-3.34%
10/27/2020	\$7.91	\$9.91	\$8.91	0.27%
10/28/2020	\$7.50	\$9.40	\$8.45	-5.24%
10/29/2020	\$7.56	\$9.51	\$8.54	1.00%
10/30/2020	\$7.02	\$9.01	\$8.02	-6.28%
11/2/2020	\$7.82	\$9.60	\$8.71	8.29%
11/3/2020	\$8.10	\$9.89	\$8.99	3.19%
11/4/2020	\$10.36	\$12.25	\$11.31	22.90%
11/5/2020	\$9.32	\$11.18	\$10.25	-9.82%
11/6/2020	\$9.49	\$11.36	\$10.42	1.69%
11/9/2020	\$8.80	\$11.21	\$10.01	-4.10%
11/10/2020	\$8.73	\$10.73	\$9.73	-2.75%
11/11/2020	\$9.69	\$11.51	\$10.60	8.51%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
11/12/2020	\$9.93	\$11.82	\$10.87	2.57%
11/13/2020	\$7.43	\$9.06	\$8.24	-27.70%
11/16/2020	\$7.22	\$8.95	\$8.09	-1.94%
11/17/2020	\$7.01	\$8.82	\$7.92	-2.11%
11/18/2020	\$6.60	\$8.28	\$7.44	-6.23%
11/19/2020	\$6.46	\$8.43	\$7.44	0.06%
11/20/2020	\$6.43	\$8.16	\$7.30	-1.99%
11/23/2020	\$6.16	\$7.97	\$7.07	-3.20%
11/24/2020	\$6.26	\$8.09	\$7.18	1.53%
11/25/2020	\$6.62	\$8.43	\$7.52	4.72%
11/27/2020	\$6.23	\$9.24	\$7.73	2.78%
11/30/2020	\$6.67	\$8.47	\$7.57	-2.18%
12/1/2020	\$6.33	\$8.42	\$7.38	-2.55%
12/2/2020	\$6.07	\$8.34	\$7.20	-2.36%
12/3/2020	\$6.35	\$8.36	\$7.35	2.06%
12/4/2020	\$6.38	\$8.77	\$7.58	2.95%
12/7/2020	\$6.33	\$8.58	\$7.46	-1.59%
12/8/2020	\$6.72	\$8.82	\$7.77	4.14%
12/9/2020	\$6.76	\$8.81	\$7.79	0.19%
12/10/2020	\$6.59	\$8.59	\$7.59	-2.50%
12/11/2020	\$7.10	\$8.91	\$8.01	5.28%
12/14/2020	\$6.71	\$8.71	\$7.71	-3.81%
12/15/2020	\$6.95	\$8.89	\$7.92	2.71%
12/16/2020	\$6.89	\$8.86	\$7.87	-0.57%
12/17/2020	\$7.27	\$9.26	\$8.26	4.82%
12/18/2020	\$6.72	\$9.33	\$8.03	-2.88%
12/21/2020	\$6.53	\$8.81	\$7.67	-4.54%
12/22/2020	\$6.45	\$8.61	\$7.53	-1.85%
12/23/2020	\$6.43	\$8.64	\$7.53	0.06%
12/24/2020	\$5.73	\$9.39	\$7.56	0.31%
12/28/2020	\$5.83	\$8.55	\$7.19	-5.01%
12/29/2020	\$5.44	\$8.12	\$6.78	-5.88%
12/30/2020	\$5.56	\$8.30	\$6.93	2.22%
12/31/2020	\$5.50	\$8.04	\$6.77	-2.26%
1/4/2021	\$5.62	\$8.33	\$6.98	2.94%
1/5/2021	\$6.16	\$8.94	\$7.55	7.91%
1/6/2021	\$7.02	\$9.05	\$8.04	6.24%
1/7/2021	\$7.11	\$9.40	\$8.26	2.68%
1/8/2021	\$7.04	\$9.49	\$8.27	0.12%
1/11/2021	\$7.07	\$9.26	\$8.17	-1.18%
1/12/2021	\$6.98	\$9.25	\$8.12	-0.65%
1/13/2021	\$10.19	\$12.54	\$11.37	33.70%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
1/14/2021	\$9.29	\$11.36	\$10.32	-9.62%
1/15/2021	\$9.45	\$11.49	\$10.47	1.38%
1/19/2021	\$11.80	\$13.82	\$12.81	20.20%
1/20/2021	\$11.12	\$13.14	\$12.13	-5.50%
1/21/2021	\$10.94	\$12.90	\$11.92	-1.71%
1/22/2021	\$11.72	\$13.68	\$12.70	6.35%
1/25/2021	\$14.31	\$16.59	\$15.45	19.59%
1/26/2021	\$16.43	\$21.83	\$19.13	21.36%
1/27/2021	\$16.57	\$22.61	\$19.59	2.37%
1/28/2021	\$15.33	\$21.22	\$18.27	-6.95%
1/29/2021	\$16.36	\$22.19	\$19.27	5.32%
2/1/2021	\$20.04	\$24.84	\$22.44	15.22%
2/2/2021	\$50.60	\$62.29	\$56.45	92.26%
2/3/2021	\$80.39	\$93.28	\$86.84	43.07%
2/4/2021	\$58.05	\$68.77	\$63.41	-31.44%
2/5/2021	\$39.85	\$49.16	\$44.50	-35.41%
2/8/2021	\$55.31	\$64.14	\$59.73	29.42%
2/9/2021	\$52.53	\$60.69	\$56.61	-5.37%
2/10/2021	\$44.98	\$52.20	\$48.59	-15.27%
2/11/2021	\$44.07	\$51.62	\$47.85	-1.54%
2/12/2021	\$41.68	\$49.79	\$45.74	-4.51%
2/16/2021	\$47.49	\$55.68	\$51.59	12.04%
2/17/2021	\$47.06	\$54.58	\$50.82	-1.50%
2/18/2021	\$46.48	\$54.13	\$50.31	-1.01%
2/19/2021	\$51.50	\$58.26	\$54.88	8.70%
2/22/2021	\$48.39	\$56.16	\$52.27	-4.87%
2/23/2021	\$48.34	\$54.75	\$51.55	-1.40%
2/24/2021	\$49.02	\$55.71	\$52.37	1.58%
2/25/2021	\$47.17	\$53.92	\$50.55	-3.54%
2/26/2021	\$45.12	\$51.82	\$48.47	-4.20%
3/1/2021	\$46.28	\$52.95	\$49.62	2.34%
3/2/2021	\$47.92	\$54.58	\$51.25	3.25%
3/3/2021	\$45.35	\$51.58	\$48.47	-5.59%
3/4/2021	\$40.88	\$47.21	\$44.05	-9.57%
3/5/2021	\$39.77	\$45.89	\$42.83	-2.81%
3/8/2021	\$41.30	\$47.45	\$44.37	3.55%
3/9/2021	\$48.46	\$54.42	\$51.44	14.77%
3/10/2021	\$48.01	\$54.29	\$51.15	-0.56%
3/11/2021	\$50.64	\$56.70	\$53.67	4.80%
3/12/2021	\$50.17	\$56.11	\$53.14	-0.98%
3/15/2021	\$48.95	\$55.01	\$51.98	-2.21%
3/16/2021	\$48.87	\$54.92	\$51.89	-0.17%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
3/17/2021	\$58.98	\$65.00	\$61.99	17.78%
3/18/2021	\$52.65	\$58.69	\$55.67	-10.75%
3/19/2021	\$53.83	\$60.23	\$57.03	2.41%
3/22/2021	\$51.69	\$58.28	\$54.98	-3.65%
3/23/2021	\$48.61	\$54.79	\$51.70	-6.16%
3/24/2021	\$45.25	\$51.56	\$48.41	-6.58%
3/25/2021	\$46.45	\$52.45	\$49.45	2.13%
3/26/2021	\$43.10	\$48.94	\$46.02	-7.18%
3/29/2021	\$40.87	\$47.31	\$44.09	-4.29%
3/30/2021	\$40.43	\$46.44	\$43.43	-1.50%
3/31/2021	\$41.52	\$47.42	\$44.47	2.36%
4/1/2021	\$42.97	\$48.99	\$45.98	3.33%
4/5/2021	\$41.69	\$47.15	\$44.42	-3.46%
4/6/2021	\$39.62	\$44.85	\$42.23	-5.04%
4/7/2021	\$38.43	\$43.63	\$41.03	-2.88%
4/8/2021	\$38.95	\$44.27	\$41.61	1.41%
4/9/2021	\$38.48	\$43.74	\$41.11	-1.22%
4/12/2021	\$32.99	\$38.27	\$35.63	-14.30%
4/13/2021	\$32.93	\$38.28	\$35.60	-0.08%
4/14/2021	\$32.77	\$37.79	\$35.28	-0.91%
4/15/2021	\$32.28	\$37.44	\$34.86	-1.19%
4/16/2021	\$31.88	\$37.37	\$34.63	-0.68%
4/19/2021	\$31.05	\$36.38	\$33.71	-2.67%
4/20/2021	\$29.32	\$34.37	\$31.84	-5.71%
4/21/2021	\$31.67	\$37.26	\$34.47	7.93%
4/22/2021	\$32.99	\$38.63	\$35.81	3.83%
4/23/2021	\$36.29	\$42.07	\$39.18	8.98%
4/26/2021	\$38.39	\$44.20	\$41.30	5.26%
4/27/2021	\$41.09	\$46.88	\$43.99	6.31%
4/28/2021	\$43.99	\$49.50	\$46.75	6.08%
4/29/2021	\$44.13	\$50.25	\$47.19	0.94%
4/30/2021	\$43.14	\$49.59	\$46.36	-1.77%
5/3/2021	\$39.76	\$45.76	\$42.76	-8.10%
5/4/2021	\$37.81	\$43.99	\$40.90	-4.43%
5/5/2021	\$38.54	\$44.64	\$41.59	1.67%
5/6/2021	\$37.83	\$44.90	\$41.37	-0.54%
5/7/2021	\$38.24	\$43.71	\$40.97	-0.95%
5/10/2021	\$35.37	\$41.30	\$38.34	-6.66%
5/11/2021	\$36.32	\$41.89	\$39.10	1.99%
5/12/2021	\$34.50	\$40.06	\$37.28	-4.77%
5/13/2021	\$35.00	\$40.30	\$37.65	0.98%
5/14/2021	\$37.91	\$43.31	\$40.61	7.58%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
5/17/2021	\$40.87	\$46.04	\$43.45	6.76%
5/18/2021	\$43.38	\$49.69	\$46.54	6.86%
5/19/2021	\$44.66	\$50.24	\$47.45	1.95%
5/20/2021	\$46.13	\$51.59	\$48.86	2.93%
5/21/2021	\$46.91	\$52.60	\$49.76	1.82%
5/24/2021	\$44.98	\$50.81	\$47.89	-3.82%
5/25/2021	\$44.21	\$50.54	\$47.38	-1.08%
5/26/2021	\$47.53	\$53.79	\$50.66	6.69%
5/27/2021	\$51.68	\$57.86	\$54.77	7.80%
5/28/2021	\$50.40	\$56.47	\$53.43	-2.47%
6/1/2021	\$53.16	\$59.56	\$56.36	5.34%
6/2/2021	\$56.90	\$63.45	\$60.18	6.55%
6/3/2021	\$58.47	\$64.49	\$61.48	2.14%
6/4/2021	\$60.72	\$66.94	\$63.83	3.75%
6/7/2021	\$64.16	\$70.13	\$67.14	5.06%
6/8/2021	\$65.73	\$71.53	\$68.63	2.19%
6/9/2021	\$63.19	\$68.95	\$66.07	-3.81%
6/10/2021	\$62.99	\$68.98	\$65.99	-0.12%
6/11/2021	\$73.43	\$79.86	\$76.64	14.97%
6/14/2021	\$72.28	\$77.92	\$75.10	-2.03%
6/15/2021	\$69.00	\$74.42	\$71.71	-4.62%
6/16/2021	\$77.19	\$82.51	\$79.85	10.76%
6/17/2021	\$75.60	\$80.83	\$78.22	-2.07%
6/18/2021	\$76.50	\$81.71	\$79.10	1.13%
6/21/2021	\$86.35	\$92.45	\$89.40	12.24%
6/22/2021	\$74.58	\$80.11	\$77.35	-14.48%
6/23/2021	\$74.59	\$80.00	\$77.29	-0.07%
6/24/2021	\$78.18	\$84.01	\$81.09	4.80%
6/25/2021	\$75.46	\$81.33	\$78.39	-3.38%
6/28/2021	\$81.96	\$87.66	\$84.81	7.87%
6/29/2021	\$79.71	\$85.26	\$82.48	-2.78%
6/30/2021	\$81.95	\$87.58	\$84.77	2.73%
7/1/2021	\$85.80	\$91.09	\$88.45	4.25%
7/2/2021	\$86.83	\$92.35	\$89.59	1.28%
7/6/2021	\$89.73	\$94.54	\$92.14	2.81%
7/7/2021	\$93.55	\$99.04	\$96.29	4.41%
7/8/2021	\$102.53	\$108.42	\$105.47	9.10%
7/9/2021	\$91.80	\$97.76	\$94.78	-10.69%
7/12/2021	\$95.69	\$101.56	\$98.63	3.98%
7/13/2021	\$100.44	\$106.15	\$103.30	4.63%
7/14/2021	\$94.06	\$99.72	\$96.89	-6.40%
7/15/2021	\$79.05	\$85.39	\$82.22	-16.42%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
7/16/2021	\$76.50	\$82.69	\$79.60	-3.24%
7/19/2021	\$78.91	\$84.89	\$81.90	2.85%
7/20/2021	\$87.33	\$93.45	\$90.39	9.86%
7/21/2021	\$113.35	\$119.78	\$116.57	25.43%
7/22/2021	\$122.44	\$128.90	\$125.67	7.52%
7/23/2021	\$119.32	\$126.43	\$122.87	-2.25%
7/26/2021	\$115.93	\$122.66	\$119.30	-2.95%
7/27/2021	\$123.55	\$130.18	\$126.87	6.15%
7/28/2021	\$130.84	\$138.07	\$134.46	5.81%
7/29/2021	\$99.17	\$105.62	\$102.40	-27.24%
7/30/2021	\$66.69	\$72.51	\$69.60	-38.61%
8/2/2021	\$77.01	\$82.47	\$79.74	13.60%
8/3/2021	\$81.13	\$87.43	\$84.28	5.54%
8/4/2021	\$84.40	\$91.12	\$87.76	4.04%
8/5/2021	\$98.09	\$103.87	\$100.98	14.03%
8/6/2021	\$93.59	\$98.76	\$96.17	-4.88%
8/9/2021	\$102.15	\$107.29	\$104.72	8.52%
8/10/2021	\$105.61	\$110.89	\$108.25	3.31%
8/11/2021	\$106.21	\$111.06	\$108.63	0.35%
8/12/2021	\$116.61	\$122.77	\$119.69	9.69%
8/13/2021	\$119.24	\$124.40	\$121.82	1.77%
8/16/2021	\$113.97	\$119.77	\$116.87	-4.15%
8/17/2021	\$101.45	\$107.53	\$104.49	-11.19%
8/18/2021	\$102.94	\$109.30	\$106.12	1.55%
8/19/2021	\$98.34	\$104.80	\$101.57	-4.38%
8/20/2021	\$100.71	\$107.43	\$104.07	2.43%
8/23/2021	\$112.73	\$118.88	\$115.80	10.68%
8/24/2021	\$114.42	\$120.51	\$117.47	1.43%
8/25/2021	\$78.74	\$83.55	\$81.14	-37.00%
8/26/2021	\$68.14	\$73.27	\$70.71	-13.76%
8/27/2021	\$56.13	\$60.49	\$58.31	-19.28%
8/30/2021	\$50.62	\$55.76	\$53.19	-9.19%
8/31/2021	\$54.36	\$59.30	\$56.83	6.62%
9/1/2021	\$49.92	\$54.22	\$52.07	-8.75%
9/2/2021	\$51.76	\$56.66	\$54.21	4.03%
9/3/2021	\$47.52	\$52.80	\$50.16	-7.76%
9/7/2021	\$46.04	\$49.74	\$47.89	-4.63%
9/8/2021	\$44.85	\$48.02	\$46.43	-3.10%
9/9/2021	\$48.01	\$51.42	\$49.71	6.83%
9/10/2021	\$49.01	\$52.37	\$50.69	1.95%
9/13/2021	\$45.16	\$48.92	\$47.04	-7.48%
9/14/2021	\$39.94	\$43.89	\$41.91	-11.54%



## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
9/15/2021	\$41.97	\$45.87	\$43.92	4.67%
9/16/2021	\$41.87	\$46.27	\$44.07	0.35%
9/17/2021	\$45.99	\$50.54	\$48.26	9.08%
9/20/2021	\$46.20	\$49.89	\$48.05	-0.45%
9/21/2021	\$51.03	\$54.29	\$52.66	9.17%
9/22/2021	\$49.88	\$54.16	\$52.02	-1.23%
9/23/2021	\$57.64	\$62.68	\$60.16	14.54%
9/24/2021	\$59.46	\$64.06	\$61.76	2.63%
9/27/2021	\$65.32	\$70.17	\$67.75	9.25%
9/28/2021	\$62.23	\$66.61	\$64.42	-5.04%
9/29/2021	\$59.28	\$63.89	\$61.59	-4.50%
9/30/2021	\$59.56	\$63.72	\$61.64	0.08%
10/1/2021	\$57.46	\$61.82	\$59.64	-3.30%
10/4/2021	\$51.67	\$56.28	\$53.97	-9.98%
10/5/2021	\$54.13	\$58.71	\$56.42	4.43%
10/6/2021	\$49.59	\$53.91	\$51.75	-8.63%
10/7/2021	\$50.69	\$55.17	\$52.93	2.25%
10/8/2021	\$48.58	\$53.35	\$50.97	-3.78%
10/11/2021	\$48.37	\$52.59	\$50.48	-0.96%
10/12/2021	\$48.85	\$53.44	\$51.15	1.31%
10/13/2021	\$52.18	\$56.55	\$54.37	6.11%
10/14/2021	\$50.48	\$54.92	\$52.70	-3.12%
10/15/2021	\$46.96	\$51.58	\$49.27	-6.73%
10/18/2021	\$47.30	\$51.97	\$49.63	0.73%
10/19/2021	\$44.36	\$49.32	\$46.84	-5.80%
10/20/2021	\$43.68	\$47.88	\$45.78	-2.28%
10/21/2021	\$43.86	\$48.53	\$46.20	0.91%
10/22/2021	\$42.76	\$47.56	\$45.16	-2.27%
10/25/2021	\$45.33	\$49.40	\$47.36	4.76%
10/26/2021	\$44.92	\$48.55	\$46.73	-1.33%
10/27/2021	\$42.51	\$46.22	\$44.36	-5.20%
10/28/2021	\$41.88	\$46.14	\$44.01	-0.80%
10/29/2021	\$40.78	\$44.87	\$42.82	-2.73%
11/1/2021	\$43.51	\$47.35	\$45.43	5.91%
11/2/2021	\$54.72	\$60.23	\$57.47	23.51%
11/3/2021	\$53.74	\$58.71	\$56.22	-2.19%
11/4/2021	\$79.92	\$86.13	\$83.03	38.98%
11/5/2021	\$85.63	\$92.69	\$89.16	7.13%
11/8/2021	\$84.75	\$91.13	\$87.94	-1.38%
11/9/2021	\$73.98	\$80.13	\$77.06	-13.21%
11/10/2021	\$65.51	\$71.31	\$68.41	-11.90%
11/11/2021	\$68.76	\$74.35	\$71.56	4.50%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
11/12/2021	\$64.83	\$70.33	\$67.58	-5.72%
11/15/2021	\$57.61	\$62.14	\$59.88	-12.11%
11/16/2021	\$58.51	\$63.49	\$61.00	1.86%
11/17/2021	\$44.80	\$48.48	\$46.64	-26.85%
11/18/2021	\$45.45	\$50.43	\$47.94	2.76%
11/19/2021	\$50.49	\$54.91	\$52.70	9.47%
11/22/2021	\$49.56	\$54.57	\$52.07	-1.21%
11/23/2021	\$49.60	\$54.33	\$51.97	-0.19%
11/24/2021	\$54.57	\$59.73	\$57.15	9.51%
11/26/2021	\$52.74	\$58.13	\$55.43	-3.06%
11/29/2021	\$51.78	\$56.38	\$54.08	-2.47%
11/30/2021	\$50.34	\$55.54	\$52.94	-2.13%
12/1/2021	\$46.20	\$50.61	\$48.40	-8.96%
12/2/2021	\$45.17	\$50.63	\$47.90	-1.04%
12/3/2021	\$42.94	\$47.86	\$45.40	-5.36%
12/6/2021	\$41.10	\$45.99	\$43.55	-4.17%
12/7/2021	\$44.70	\$49.48	\$47.09	7.83%
12/8/2021	\$46.82	\$51.79	\$49.31	4.60%
12/9/2021	\$42.74	\$48.13	\$45.43	-8.18%
12/10/2021	\$41.14	\$46.49	\$43.82	-3.62%
12/13/2021	\$42.05	\$47.18	\$44.61	1.81%
12/14/2021	\$43.70	\$49.25	\$46.47	4.08%
12/15/2021	\$42.65	\$47.80	\$45.22	-2.73%
12/16/2021	\$40.92	\$45.88	\$43.40	-4.11%
12/17/2021	\$39.85	\$45.96	\$42.91	-1.15%
12/20/2021	\$33.97	\$39.12	\$36.55	-16.05%
12/21/2021	\$40.60	\$45.47	\$43.03	16.34%
12/22/2021	\$41.58	\$45.04	\$43.31	0.65%
12/23/2021	\$42.07	\$45.54	\$43.81	1.13%
12/27/2021	\$44.29	\$48.14	\$46.21	5.35%
12/28/2021	\$41.94	\$45.60	\$43.77	-5.43%
12/29/2021	\$40.65	\$44.26	\$42.46	-3.05%
12/30/2021	\$41.97	\$44.97	\$43.47	2.36%
12/31/2021	\$41.66	\$44.79	\$43.23	-0.56%
1/3/2022	\$45.29	\$49.16	\$47.22	8.84%
1/4/2022	\$45.25	\$49.63	\$47.44	0.46%
1/5/2022	\$46.20	\$51.80	\$49.00	3.25%
1/6/2022	\$45.92	\$51.27	\$48.60	-0.83%
1/7/2022	\$45.34	\$49.71	\$47.52	-2.24%
1/10/2022	\$44.95	\$50.16	\$47.55	0.06%
1/11/2022	\$47.05	\$51.46	\$49.26	3.52%
1/12/2022	\$45.50	\$50.51	\$48.00	-2.58%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
1/13/2022	\$43.13	\$47.43	\$45.28	-5.83%
1/14/2022	\$42.43	\$48.15	\$45.29	0.02%
1/18/2022	\$38.86	\$43.62	\$41.24	-9.37%
1/19/2022	\$38.12	\$43.13	\$40.62	-1.50%
1/20/2022	\$34.45	\$39.30	\$36.87	-9.69%
1/21/2022	\$32.96	\$38.37	\$35.66	-3.34%
1/24/2022	\$36.00	\$40.89	\$38.45	7.52%
1/25/2022	\$36.66	\$41.90	\$39.28	2.13%
1/26/2022	\$36.00	\$41.07	\$38.54	-1.90%
1/27/2022	\$34.66	\$39.22	\$36.94	-4.25%
1/28/2022	\$35.93	\$40.95	\$38.44	3.98%
1/31/2022	\$39.22	\$44.51	\$41.86	8.54%
2/1/2022	\$41.07	\$46.14	\$43.61	4.09%
2/2/2022	\$40.69	\$46.01	\$43.35	-0.60%
2/3/2022	\$40.30	\$45.37	\$42.83	-1.20%
2/4/2022	\$42.65	\$47.72	\$45.19	5.35%
2/7/2022	\$41.44	\$47.36	\$44.40	-1.75%
2/8/2022	\$41.49	\$47.31	\$44.40	-0.00%
2/9/2022	\$43.71	\$49.14	\$46.42	4.46%
2/10/2022	\$47.98	\$53.50	\$50.74	8.89%
2/11/2022	\$46.36	\$52.22	\$49.29	-2.90%
2/14/2022	\$44.45	\$49.49	\$46.97	-4.82%
2/15/2022	\$45.11	\$49.93	\$47.52	1.16%
2/16/2022	\$44.66	\$49.45	\$47.05	-0.99%
2/17/2022	\$41.34	\$46.63	\$43.99	-6.74%
2/18/2022	\$41.61	\$46.42	\$44.02	0.07%
2/22/2022	\$37.94	\$42.93	\$40.43	-8.49%
2/23/2022	\$35.37	\$39.54	\$37.45	-7.66%
2/24/2022	\$38.42	\$43.03	\$40.72	8.37%
2/25/2022	\$38.57	\$43.88	\$41.22	1.21%
2/28/2022	\$38.77	\$43.45	\$41.11	-0.27%
3/1/2022	\$36.65	\$41.50	\$39.07	-5.08%
3/2/2022	\$37.34	\$41.80	\$39.57	1.26%
3/3/2022	\$33.93	\$38.42	\$36.18	-8.97%
3/4/2022	\$33.80	\$38.80	\$36.30	0.34%
3/7/2022	\$31.63	\$36.01	\$33.82	-7.08%
3/8/2022	\$32.13	\$36.77	\$34.45	1.84%
3/9/2022	\$34.05	\$38.66	\$36.36	5.39%
3/10/2022	\$34.21	\$38.94	\$36.57	0.60%
3/11/2022	\$32.87	\$37.53	\$35.20	-3.83%
3/14/2022	\$29.39	\$34.33	\$31.86	-9.98%
3/15/2022	\$31.48	\$35.90	\$33.69	5.59%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
3/16/2022	\$33.66	\$38.21	\$35.93	6.44%
3/17/2022	\$35.58	\$40.29	\$37.93	5.41%
3/18/2022	\$35.35	\$40.30	\$37.83	-0.28%
3/21/2022	\$34.50	\$39.29	\$36.90	-2.49%
3/22/2022	\$35.69	\$39.66	\$37.67	2.08%
3/23/2022	\$36.63	\$40.86	\$38.75	2.81%
3/24/2022	\$37.36	\$41.58	\$39.47	1.85%
3/25/2022	\$37.03	\$41.14	\$39.08	-0.99%
3/28/2022	\$36.56	\$40.84	\$38.70	-0.97%
3/29/2022	\$36.52	\$40.82	\$38.67	-0.09%
3/30/2022	\$34.99	\$40.18	\$37.59	-2.85%
3/31/2022	\$34.06	\$38.50	\$36.28	-3.53%
4/1/2022	\$34.85	\$38.71	\$36.78	1.36%
4/4/2022	\$34.84	\$39.46	\$37.15	1.00%
4/5/2022	\$28.19	\$32.41	\$30.30	-20.38%
4/6/2022	\$26.53	\$30.17	\$28.35	-6.67%
4/7/2022	\$25.07	\$29.28	\$27.17	-4.22%
4/8/2022	\$24.32	\$28.18	\$26.25	-3.46%
4/11/2022	\$23.84	\$26.95	\$25.39	-3.32%
4/12/2022	\$23.45	\$27.51	\$25.48	0.35%
4/13/2022	\$24.46	\$28.30	\$26.38	3.45%
4/14/2022	\$23.78	\$27.38	\$25.58	-3.06%
4/18/2022	\$22.99	\$26.30	\$24.65	-3.73%
4/19/2022	\$20.11	\$23.31	\$21.71	-12.67%
4/20/2022	\$18.28	\$21.24	\$19.76	-9.41%
4/21/2022	\$16.45	\$19.34	\$17.89	-9.94%
4/22/2022	\$16.92	\$19.83	\$18.37	2.64%
4/25/2022	\$17.87	\$21.68	\$19.77	7.34%
4/26/2022	\$18.79	\$23.29	\$21.04	6.21%
4/27/2022	\$18.73	\$22.11	\$20.42	-2.98%
4/28/2022	\$18.98	\$21.71	\$20.34	-0.39%
4/29/2022	\$18.28	\$22.28	\$20.28	-0.29%
5/2/2022	\$18.47	\$21.58	\$20.02	-1.28%
5/3/2022	\$19.04	\$21.68	\$20.36	1.66%
5/4/2022	\$18.74	\$21.82	\$20.28	-0.39%
5/5/2022	\$18.45	\$21.50	\$19.97	-1.52%
5/6/2022	\$18.19	\$20.70	\$19.44	-2.71%
5/9/2022	\$16.78	\$19.75	\$18.27	-6.23%
5/10/2022	\$17.59	\$20.29	\$18.94	3.61%
5/11/2022	\$15.11	\$18.13	\$16.62	-13.06%
5/12/2022	\$15.61	\$18.18	\$16.89	1.63%
5/13/2022	\$17.04	\$19.94	\$18.49	9.05%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
5/16/2022	\$18.60	\$21.49	\$20.04	8.07%
5/17/2022	\$20.05	\$23.50	\$21.77	8.28%
5/18/2022	\$19.95	\$22.83	\$21.39	-1.78%
5/19/2022	\$21.60	\$24.51	\$23.05	7.48%
5/20/2022	\$22.62	\$25.81	\$24.21	4.92%
5/23/2022	\$24.43	\$27.85	\$26.14	7.64%
5/24/2022	\$22.20	\$25.87	\$24.04	-8.38%
5/25/2022	\$24.04	\$27.01	\$25.52	6.01%
5/26/2022	\$22.98	\$26.22	\$24.60	-3.70%
5/27/2022	\$23.94	\$27.35	\$25.64	4.16%
5/31/2022	\$27.02	\$31.31	\$29.17	12.87%
6/1/2022	\$24.12	\$27.28	\$25.70	-12.65%
6/2/2022	\$24.25	\$28.23	\$26.24	2.08%
6/3/2022	\$26.07	\$29.38	\$27.73	5.50%
6/6/2022	\$24.79	\$28.62	\$26.71	-3.75%
6/7/2022	\$25.81	\$29.25	\$27.53	3.05%
6/8/2022	\$25.04	\$28.79	\$26.91	-2.27%
6/9/2022	\$23.33	\$26.37	\$24.85	-7.99%
6/10/2022	\$24.05	\$28.49	\$26.27	5.55%
6/13/2022	\$19.33	\$23.42	\$21.38	-20.59%
6/14/2022	\$21.46	\$24.65	\$23.06	7.56%
6/15/2022	\$23.32	\$26.99	\$25.15	8.70%
6/16/2022	\$22.78	\$26.39	\$24.59	-2.28%
6/17/2022	\$23.24	\$27.40	\$25.32	2.94%
6/21/2022	\$22.49	\$26.69	\$24.59	-2.92%
6/22/2022	\$25.14	\$29.20	\$27.17	9.97%
6/23/2022	\$26.75	\$30.91	\$28.83	5.94%
6/24/2022	\$26.74	\$30.59	\$28.67	-0.57%
6/27/2022	\$26.84	\$30.80	\$28.82	0.53%
6/28/2022	\$25.53	\$29.69	\$27.61	-4.28%
6/29/2022	\$26.25	\$29.54	\$27.90	1.03%
6/30/2022	\$24.20	\$28.47	\$26.33	-5.76%
7/1/2022	\$22.75	\$26.95	\$24.85	-5.81%
7/5/2022	\$23.04	\$26.33	\$24.69	-0.65%
7/6/2022	\$21.15	\$24.47	\$22.81	-7.91%
7/7/2022	\$21.72	\$24.92	\$23.32	2.19%
7/8/2022	\$21.31	\$24.29	\$22.80	-2.23%
7/11/2022	\$20.15	\$23.30	\$21.72	-4.84%
7/12/2022	\$20.18	\$23.10	\$21.64	-0.40%
7/13/2022	\$20.54	\$23.20	\$21.87	1.06%
7/14/2022	\$20.24	\$23.44	\$21.84	-0.14%
7/15/2022	\$20.73	\$24.20	\$22.46	2.82%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
7/18/2022	\$20.09	\$24.09	\$22.09	-1.67%
7/19/2022	\$21.31	\$24.39	\$22.85	3.38%
7/20/2022	\$21.28	\$24.39	\$22.84	-0.08%
7/21/2022	\$20.76	\$24.01	\$22.38	-2.00%
7/22/2022	\$20.22	\$23.49	\$21.85	-2.39%
7/25/2022	\$18.97	\$21.93	\$20.45	-6.64%
7/26/2022	\$19.00	\$22.03	\$20.52	0.32%
7/27/2022	\$16.38	\$19.29	\$17.84	-14.00%
7/28/2022	\$14.65	\$17.48	\$16.07	-10.45%
7/29/2022	\$14.48	\$16.76	\$15.62	-2.82%
8/1/2022	\$15.40	\$18.70	\$17.05	8.76%
8/2/2022	\$16.84	\$20.02	\$18.43	7.78%
8/3/2022	\$15.90	\$19.45	\$17.68	-4.17%
8/4/2022	\$14.88	\$17.89	\$16.39	-7.58%
8/5/2022	\$15.00	\$18.35	\$16.68	1.76%
8/8/2022	\$16.45	\$20.08	\$18.27	9.12%
8/9/2022	\$17.34	\$20.60	\$18.97	3.78%
8/10/2022	\$17.57	\$20.40	\$18.98	0.05%
8/11/2022	\$17.35	\$20.52	\$18.94	-0.23%
8/12/2022	\$18.22	\$20.93	\$19.58	3.33%
8/15/2022	\$16.72	\$21.46	\$19.09	-2.52%
8/16/2022	\$17.81	\$20.47	\$19.14	0.27%
8/17/2022	\$23.09	\$26.14	\$24.61	25.14%
8/18/2022	\$23.94	\$26.70	\$25.32	2.84%
8/19/2022	\$23.25	\$25.91	\$24.58	-2.98%
8/22/2022	\$22.43	\$24.70	\$23.57	-4.20%
8/23/2022	\$22.87	\$25.94	\$24.41	3.49%
8/24/2022	\$25.69	\$27.70	\$26.69	8.96%
8/25/2022	\$25.03	\$27.49	\$26.26	-1.65%
8/26/2022	\$27.33	\$29.45	\$28.39	7.80%
8/29/2022	\$23.56	\$26.45	\$25.01	-12.68%
8/30/2022	\$24.00	\$26.26	\$25.13	0.51%
8/31/2022	\$23.64	\$26.23	\$24.93	-0.80%
9/1/2022	\$23.09	\$25.72	\$24.40	-2.15%
9/2/2022	\$22.99	\$24.49	\$23.74	-2.75%
9/6/2022	\$25.63	\$27.66	\$26.64	11.53%
9/7/2022	\$27.07	\$28.73	\$27.90	4.62%
9/8/2022	\$27.39	\$29.12	\$28.25	1.25%
9/9/2022	\$30.48	\$32.32	\$31.40	10.56%
9/12/2022	\$30.68	\$32.71	\$31.69	0.92%
9/13/2022	\$28.27	\$30.93	\$29.60	-6.83%
9/14/2022	\$30.17	\$32.22	\$31.19	5.25%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
9/15/2022	\$29.17	\$30.98	\$30.07	-3.67%
9/16/2022	\$28.59	\$30.62	\$29.60	-1.57%
9/19/2022	\$27.87	\$29.68	\$28.77	-2.85%
9/20/2022	\$34.77	\$39.24	\$37.00	25.16%
9/21/2022	\$34.43	\$36.90	\$35.67	-3.68%
9/22/2022	\$46.94	\$50.15	\$48.55	30.83%
9/23/2022	\$37.96	\$41.02	\$39.49	-20.65%
9/26/2022	\$41.66	\$44.22	\$42.94	8.38%
9/27/2022	\$42.49	\$44.92	\$43.71	1.77%
9/28/2022	\$40.25	\$42.91	\$41.58	-4.99%
9/29/2022	\$39.71	\$42.08	\$40.89	-1.66%
9/30/2022	\$38.47	\$40.94	\$39.71	-2.95%
10/3/2022	\$37.90	\$40.34	\$39.12	-1.49%
10/4/2022	\$37.96	\$40.88	\$39.42	0.76%
10/5/2022	\$37.31	\$40.13	\$38.72	-1.79%
10/6/2022	\$39.11	\$41.12	\$40.12	3.55%
10/7/2022	\$36.72	\$38.86	\$37.79	-5.97%
10/10/2022	\$33.16	\$35.11	\$34.14	-10.17%
10/11/2022	\$32.61	\$34.64	\$33.62	-1.52%
10/12/2022	\$32.73	\$34.80	\$33.77	0.43%
10/13/2022	\$34.08	\$36.21	\$35.14	4.00%
10/14/2022	\$33.66	\$35.59	\$34.62	-1.49%
10/17/2022	\$32.93	\$35.01	\$33.97	-1.91%
10/18/2022	\$32.04	\$33.86	\$32.95	-3.04%
10/19/2022	\$30.43	\$32.34	\$31.39	-4.87%
10/20/2022	\$31.35	\$33.14	\$32.24	2.70%
10/21/2022	\$32.21	\$34.21	\$33.21	2.95%
10/24/2022	\$31.23	\$33.26	\$32.25	-2.95%
10/25/2022	\$31.62	\$33.53	\$32.58	1.03%
10/26/2022	\$32.67	\$34.77	\$33.72	3.44%
10/27/2022	\$32.18	\$34.11	\$33.14	-1.71%
10/28/2022	\$33.77	\$36.10	\$34.93	5.26%
10/31/2022	\$33.44	\$35.77	\$34.61	-0.94%
11/1/2022	\$33.01	\$35.17	\$34.09	-1.50%
11/2/2022	\$32.83	\$35.37	\$34.10	0.03%
11/3/2022	\$31.54	\$33.59	\$32.56	-4.62%
11/4/2022	\$32.57	\$34.46	\$33.51	2.88%
11/7/2022	\$31.22	\$33.17	\$32.20	-4.01%
11/8/2022	\$31.98	\$34.00	\$32.99	2.44%
11/9/2022	\$31.81	\$33.65	\$32.73	-0.80%
11/10/2022	\$32.21	\$34.12	\$33.17	1.33%
11/11/2022	\$34.77	\$36.76	\$35.77	7.55%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
11/14/2022	\$37.88	\$40.13	\$39.01	8.67%
11/15/2022	\$37.06	\$39.32	\$38.19	-2.11%
11/16/2022	\$32.13	\$34.43	\$33.28	-13.76%
11/17/2022	\$31.80	\$34.16	\$32.98	-0.90%
11/18/2022	\$30.75	\$33.10	\$31.92	-3.27%
11/21/2022	\$29.73	\$32.31	\$31.02	-2.87%
11/22/2022	\$30.11	\$32.69	\$31.40	1.22%
11/23/2022	\$31.27	\$33.23	\$32.25	2.68%
11/25/2022	\$32.58	\$34.24	\$33.41	3.54%
11/28/2022	\$31.38	\$33.31	\$32.35	-3.25%
11/29/2022	\$31.85	\$33.75	\$32.80	1.40%
11/30/2022	\$32.16	\$34.20	\$33.18	1.14%
12/1/2022	\$31.74	\$33.42	\$32.58	-1.82%
12/2/2022	\$33.29	\$35.30	\$34.30	5.14%
12/5/2022	\$30.99	\$33.04	\$32.02	-6.88%
12/6/2022	\$30.83	\$32.90	\$31.86	-0.47%
12/7/2022	\$34.10	\$36.26	\$35.18	9.91%
12/8/2022	\$35.59	\$38.02	\$36.81	4.51%
12/9/2022	\$36.00	\$38.09	\$37.05	0.65%
12/12/2022	\$38.45	\$41.01	\$39.73	6.99%
12/13/2022	\$40.29	\$43.25	\$41.77	5.01%
12/14/2022	\$40.69	\$43.48	\$42.08	0.74%
12/15/2022	\$36.42	\$38.99	\$37.71	-10.98%
12/16/2022	\$35.41	\$38.17	\$36.79	-2.46%
12/19/2022	\$34.74	\$37.31	\$36.02	-2.11%
12/20/2022	\$34.32	\$37.19	\$35.76	-0.74%
12/21/2022	\$33.49	\$36.53	\$35.01	-2.10%
12/22/2022	\$29.91	\$33.08	\$31.49	-10.59%
12/23/2022	\$28.68	\$31.38	\$30.03	-4.75%
12/27/2022	\$24.84	\$27.75	\$26.29	-13.30%
12/28/2022	\$24.10	\$27.18	\$25.64	-2.51%
12/29/2022	\$25.18	\$28.26	\$26.72	4.12%
12/30/2022	\$25.70	\$28.84	\$27.27	2.05%
1/3/2023	\$24.32	\$27.13	\$25.72	-5.85%
1/4/2023	\$26.20	\$29.16	\$27.68	7.33%
1/5/2023	\$27.08	\$29.17	\$28.13	1.59%
1/6/2023	\$26.52	\$28.50	\$27.51	-2.21%
1/9/2023	\$26.80	\$28.84	\$27.82	1.11%
1/10/2023	\$29.19	\$31.23	\$30.21	8.23%
1/11/2023	\$33.28	\$35.55	\$34.41	13.04%
1/12/2023	\$32.15	\$34.30	\$33.23	-3.52%
1/13/2023	\$32.04	\$34.42	\$33.23	0.02%



## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
1/17/2023	\$32.63	\$34.73	\$33.68	1.34%
1/18/2023	\$32.32	\$34.32	\$33.32	-1.08%
1/19/2023	\$31.13	\$33.35	\$32.24	-3.30%
1/20/2023	\$32.83	\$35.08	\$33.96	5.19%
1/23/2023	\$34.56	\$36.65	\$35.60	4.73%
1/24/2023	\$27.82	\$29.43	\$28.63	-21.81%
1/25/2023	\$25.96	\$27.57	\$26.76	-6.73%
1/26/2023	\$26.25	\$27.99	\$27.12	1.31%
1/27/2023	\$27.32	\$28.97	\$28.14	3.72%
1/30/2023	\$25.65	\$27.23	\$26.44	-6.25%
1/31/2023	\$26.33	\$27.91	\$27.12	2.55%
2/1/2023	\$27.12	\$28.80	\$27.96	3.04%
2/2/2023	\$29.67	\$31.51	\$30.59	8.99%
2/3/2023	\$29.11	\$30.91	\$30.01	-1.91%
2/6/2023	\$27.83	\$29.56	\$28.69	-4.49%
2/7/2023	\$27.73	\$30.00	\$28.86	0.58%
2/8/2023	\$27.87	\$29.44	\$28.66	-0.71%
2/9/2023	\$26.98	\$28.58	\$27.78	-3.10%
2/10/2023	\$26.58	\$28.11	\$27.34	-1.60%
2/13/2023	\$25.22	\$26.78	\$26.00	-5.04%
2/14/2023	\$24.38	\$26.11	\$25.25	-2.92%
2/15/2023	\$24.80	\$26.40	\$25.60	1.37%
2/16/2023	\$24.41	\$26.86	\$25.64	0.15%
2/17/2023	\$25.10	\$27.49	\$26.30	2.54%
2/21/2023	\$23.22	\$25.92	\$24.57	-6.78%
2/22/2023	\$23.50	\$25.57	\$24.53	-0.16%
2/23/2023	\$23.55	\$26.01	\$24.78	1.01%
2/24/2023	\$23.16	\$25.21	\$24.19	-2.43%
2/27/2023	\$23.10	\$24.94	\$24.02	-0.70%
2/28/2023	\$22.80	\$24.96	\$23.88	-0.57%
3/1/2023	\$23.39	\$25.29	\$24.34	1.88%
3/2/2023	\$23.73	\$25.62	\$24.68	1.40%
3/3/2023	\$24.76	\$26.71	\$25.74	4.20%
3/6/2023	\$24.47	\$26.47	\$25.47	-1.04%
3/7/2023	\$23.56	\$25.41	\$24.48	-3.96%
3/8/2023	\$23.18	\$25.26	\$24.22	-1.09%
3/9/2023	\$23.03	\$25.32	\$24.18	-0.18%
3/10/2023	\$22.88	\$25.40	\$24.14	-0.14%
3/13/2023	\$23.53	\$26.19	\$24.86	2.94%
3/14/2023	\$23.79	\$26.60	\$25.20	1.34%
3/15/2023	\$23.82	\$26.52	\$25.17	-0.13%
3/16/2023	\$24.69	\$27.29	\$25.99	3.23%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
3/17/2023	\$24.27	\$26.91	\$25.59	-1.55%
3/20/2023	\$24.25	\$26.58	\$25.41	-0.69%
3/21/2023	\$23.87	\$26.10	\$24.98	-1.71%
3/22/2023	\$21.53	\$24.55	\$23.04	-8.11%
3/23/2023	\$21.61	\$24.65	\$23.13	0.41%
3/24/2023	\$21.80	\$25.04	\$23.42	1.23%
3/27/2023	\$22.18	\$24.50	\$23.34	-0.33%
3/28/2023	\$21.69	\$23.90	\$22.80	-2.36%
3/29/2023	\$21.98	\$24.18	\$23.08	1.23%
3/30/2023	\$22.11	\$24.47	\$23.29	0.90%
3/31/2023	\$22.22	\$24.64	\$23.43	0.62%
4/3/2023	\$22.16	\$24.61	\$23.39	-0.19%
4/4/2023	\$21.92	\$24.46	\$23.19	-0.85%
4/5/2023	\$21.86	\$24.20	\$23.03	-0.69%
4/6/2023	\$21.93	\$24.60	\$23.27	1.02%
4/10/2023	\$21.14	\$23.28	\$22.21	-4.65%
4/11/2023	\$21.46	\$23.83	\$22.64	1.92%
4/12/2023	\$21.00	\$23.43	\$22.22	-1.90%
4/13/2023	\$21.05	\$24.53	\$22.79	2.55%
4/14/2023	\$21.47	\$23.73	\$22.60	-0.85%
4/17/2023	\$22.58	\$24.96	\$23.77	5.06%
4/18/2023	\$22.63	\$24.85	\$23.74	-0.14%
4/19/2023	\$22.42	\$24.37	\$23.40	-1.45%
4/20/2023	\$21.24	\$23.93	\$22.58	-3.54%
4/21/2023	\$21.62	\$23.98	\$22.80	0.98%
4/24/2023	\$21.09	\$23.27	\$22.18	-2.76%
4/25/2023	\$20.14	\$22.33	\$21.24	-4.35%
4/26/2023	\$19.64	\$22.22	\$20.93	-1.46%
4/27/2023	\$20.71	\$23.16	\$21.94	4.69%
4/28/2023	\$21.47	\$23.84	\$22.65	3.22%
5/1/2023	\$21.58	\$23.70	\$22.64	-0.05%
5/2/2023	\$20.33	\$22.71	\$21.52	-5.09%
5/3/2023	\$20.45	\$22.71	\$21.58	0.28%
5/4/2023	\$20.54	\$22.87	\$21.70	0.58%
5/5/2023	\$20.37	\$23.16	\$21.77	0.29%
5/8/2023	\$21.16	\$23.62	\$22.39	2.80%
5/9/2023	\$24.58	\$27.17	\$25.88	14.49%
5/10/2023	\$25.12	\$27.37	\$26.24	1.40%
5/11/2023	\$25.90	\$28.30	\$27.10	3.21%
5/12/2023	\$24.50	\$27.27	\$25.88	-4.59%
5/15/2023	\$24.57	\$27.00	\$25.78	-0.40%
5/16/2023	\$23.37	\$25.80	\$24.58	-4.76%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
5/17/2023	\$23.38	\$25.88	\$24.63	0.20%
5/18/2023	\$22.82	\$25.15	\$23.99	-2.65%
5/19/2023	\$22.58	\$24.59	\$23.58	-1.69%
5/22/2023	\$23.46	\$25.59	\$24.52	3.91%
5/23/2023	\$23.43	\$25.78	\$24.60	0.33%
5/24/2023	\$23.26	\$25.82	\$24.54	-0.27%
5/25/2023	\$22.38	\$24.92	\$23.65	-3.70%
5/26/2023	\$21.86	\$24.17	\$23.01	-2.73%
5/30/2023	\$21.05	\$23.47	\$22.26	-3.31%
5/31/2023	\$20.94	\$23.27	\$22.11	-0.70%
6/1/2023	\$20.78	\$23.15	\$21.97	-0.63%
6/2/2023	\$21.64	\$23.50	\$22.57	2.71%
6/5/2023	\$21.20	\$23.27	\$22.23	-1.51%
6/6/2023	\$21.67	\$23.67	\$22.67	1.96%
6/7/2023	\$22.36	\$24.57	\$23.46	3.42%
6/8/2023	\$22.68	\$25.15	\$23.92	1.92%
6/9/2023	\$22.50	\$24.81	\$23.65	-1.10%
6/12/2023	\$22.83	\$25.12	\$23.98	1.36%
6/13/2023	\$23.75	\$26.06	\$24.91	3.80%
6/14/2023	\$23.57	\$25.82	\$24.69	-0.85%
6/15/2023	\$23.40	\$25.51	\$24.45	-0.99%
6/16/2023	\$22.50	\$25.59	\$24.04	-1.69%
6/20/2023	\$23.06	\$25.30	\$24.18	0.58%
6/21/2023	\$23.55	\$25.72	\$24.64	1.86%
6/22/2023	\$23.83	\$25.86	\$24.84	0.84%
6/23/2023	\$23.23	\$25.47	\$24.35	-2.01%
6/26/2023	\$21.97	\$24.27	\$23.12	-5.17%
6/27/2023	\$22.17	\$24.65	\$23.41	1.23%
6/28/2023	\$22.04	\$24.23	\$23.14	-1.17%
6/29/2023	\$22.03	\$24.29	\$23.16	0.10%
6/30/2023	\$22.87	\$25.13	\$24.00	3.56%
7/3/2023	\$23.46	\$25.84	\$24.65	2.68%
7/5/2023	\$20.68	\$22.59	\$21.64	-13.04%
7/6/2023	\$21.14	\$23.66	\$22.40	3.45%
7/7/2023	\$20.73	\$22.71	\$21.72	-3.07%
7/10/2023	\$20.35	\$22.42	\$21.38	-1.56%
7/11/2023	\$20.75	\$22.58	\$21.66	1.30%
7/12/2023	\$20.63	\$22.57	\$21.60	-0.30%
7/13/2023	\$20.51	\$22.50	\$21.50	-0.44%
7/14/2023	\$20.28	\$22.15	\$21.22	-1.35%
7/17/2023	\$20.47	\$22.37	\$21.42	0.96%
7/18/2023	\$19.94	\$21.74	\$20.84	-2.72%

## Exhibit-20

## Cassava Synthetic Stock Prices Derived from Cassava Options

15 January 2020 through 10 January 2024

Date	Cassava Synthetic Stock Bid Price	Cassava Synthetic Stock Ask Price	Cassava Synthetic Stock Price	Cassava Synthetic Stock Logarithmic Return
7/19/2023	\$20.06	\$21.92	\$20.99	0.70%
7/20/2023	\$19.98	\$21.97	\$20.97	-0.07%
7/21/2023	\$20.08	\$22.16	\$21.12	0.71%
7/24/2023	\$19.36	\$21.07	\$20.22	-4.40%
7/25/2023	\$18.84	\$20.91	\$19.88	-1.70%
7/26/2023	\$18.55	\$20.77	\$19.66	-1.08%
7/27/2023	\$18.96	\$20.89	\$19.92	1.32%
7/28/2023	\$19.67	\$21.36	\$20.52	2.93%
7/31/2023	\$20.58	\$22.37	\$21.47	4.55%
8/1/2023	\$20.29	\$22.30	\$21.30	-0.83%
8/2/2023	\$19.65	\$21.52	\$20.59	-3.39%
8/3/2023	\$19.42	\$21.39	\$20.40	-0.88%
8/4/2023	\$18.76	\$20.56	\$19.66	-3.73%
8/7/2023	\$17.49	\$19.58	\$18.54	-5.87%
8/8/2023	\$17.32	\$19.39	\$18.35	-1.00%
8/9/2023	\$17.30	\$19.16	\$18.23	-0.69%
8/10/2023	\$16.87	\$18.63	\$17.75	-2.65%
8/11/2023	\$16.62	\$18.40	\$17.51	-1.37%
8/14/2023	\$16.88	\$18.77	\$17.83	1.80%
8/15/2023	\$16.09	\$18.11	\$17.10	-4.15%
8/16/2023	\$15.74	\$17.68	\$16.71	-2.32%
8/17/2023	\$16.25	\$17.82	\$17.04	1.93%
8/18/2023	\$16.09	\$17.33	\$16.71	-1.95%
8/21/2023	\$15.72	\$16.99	\$16.35	-2.14%
8/22/2023	\$16.17	\$17.47	\$16.82	2.81%
8/23/2023	\$16.37	\$17.67	\$17.02	1.18%
8/24/2023	\$17.39	\$18.63	\$18.01	5.65%
8/25/2023	\$17.31	\$18.60	\$17.95	-0.31%
8/28/2023	\$18.26	\$19.64	\$18.95	5.39%
8/29/2023	\$19.69	\$21.62	\$20.65	8.62%
8/30/2023	\$20.12	\$22.13	\$21.12	2.24%
8/31/2023	\$19.69	\$21.21	\$20.45	-3.24%
9/1/2023	\$19.75	\$21.31	\$20.53	0.38%
9/5/2023	\$19.69	\$21.25	\$20.47	-0.27%
9/6/2023	\$19.35	\$20.76	\$20.05	-2.06%
9/7/2023	\$19.82	\$21.43	\$20.62	2.79%
9/8/2023	\$19.90	\$21.31	\$20.60	-0.11%
9/11/2023	\$19.28	\$20.98	\$20.13	-2.33%
9/12/2023	\$18.03	\$19.48	\$18.75	-7.07%
9/13/2023	\$18.17	\$19.58	\$18.88	0.66%
9/14/2023	\$18.25	\$19.84	\$19.04	0.86%
9/15/2023	\$17.99	\$19.54	\$18.76	-1.48%

**Exhibit-20****Cassava Synthetic Stock Prices Derived from Cassava Options**

15 January 2020 through 10 January 2024

<b>Date</b>	<b>Cassava Synthetic Stock Bid Price</b>	<b>Cassava Synthetic Stock Ask Price</b>	<b>Cassava Synthetic Stock Price</b>	<b>Cassava Synthetic Stock Logarithmic Return</b>
9/18/2023	\$16.90	\$18.39	\$17.65	-6.13%
9/19/2023	\$16.67	\$18.34	\$17.51	-0.79%
9/20/2023	\$17.04	\$18.62	\$17.83	1.81%
9/21/2023	\$16.33	\$17.82	\$17.08	-4.30%
9/22/2023	\$16.20	\$17.65	\$16.92	-0.91%
9/25/2023	\$16.40	\$17.87	\$17.14	1.28%
9/26/2023	\$15.68	\$17.22	\$16.45	-4.08%
9/27/2023	\$15.55	\$17.06	\$16.31	-0.90%
9/28/2023	\$15.48	\$17.05	\$16.26	-0.26%
9/29/2023	\$15.26	\$16.98	\$16.12	-0.87%
10/2/2023	\$15.41	\$16.98	\$16.20	0.45%
10/3/2023	\$16.12	\$17.95	\$17.03	5.05%
10/4/2023	\$17.37	\$19.04	\$18.20	6.64%
10/5/2023	\$17.27	\$18.90	\$18.09	-0.65%
10/6/2023	\$17.66	\$19.19	\$18.42	1.86%
10/9/2023	\$17.14	\$18.88	\$18.01	-2.27%
10/10/2023	\$17.61	\$19.40	\$18.50	2.69%
10/11/2023	\$16.88	\$18.52	\$17.70	-4.44%
10/12/2023	\$16.06	\$17.72	\$16.89	-4.69%

**Sources:** OptionMetrics (Cassava Synthetic Stock Bid Price; ,Cassava Synthetic Stock Ask Price) and computations performed by Crowninshield Financial Research, Inc. (Cassava Synthetic Stock Price; Cassava Synthetic Stock Logarithmic Return).

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/14/2020	-0.001	0.130	0.804	0.005	0.409	0.435	-0.09	0.32	1.85	0.793	6.72%
9/15/2020	-0.001	0.130	0.804	0.005	0.409	0.435	-0.09	0.32	1.85	0.792	6.72%
9/16/2020	-0.001	0.144	0.780	0.005	0.410	0.436	-0.20	0.35	1.79	0.789	6.74%
9/17/2020	-0.001	0.145	0.779	0.005	0.409	0.434	-0.21	0.36	1.79	0.789	6.72%
9/18/2020	-0.001	0.144	0.780	0.005	0.407	0.433	-0.20	0.35	1.80	0.796	6.69%
9/21/2020	0.001	-0.012	0.937	0.006	0.438	0.466	0.18	-0.03	2.01	0.762	7.22%
9/22/2020	0.001	-0.013	0.940	0.006	0.436	0.462	0.18	-0.03	2.03	0.762	7.20%
9/23/2020	0.001	-0.009	0.942	0.006	0.435	0.461	0.24	-0.02	2.04	0.762	7.19%
9/24/2020	0.001	0.016	0.928	0.006	0.434	0.461	0.17	0.04	2.01	0.761	7.18%
9/25/2020	0.001	0.016	0.927	0.006	0.432	0.458	0.17	0.04	2.02	0.763	7.16%
9/28/2020	0.002	-0.004	0.982	0.006	0.436	0.462	0.34	-0.01	2.12	0.756	7.24%
9/29/2020	0.002	-0.017	0.991	0.006	0.434	0.461	0.30	-0.04	2.15	0.756	7.22%
9/30/2020	0.002	-0.021	0.995	0.006	0.433	0.459	0.32	-0.05	2.17	0.756	7.20%
10/1/2020	0.002	-0.021	0.995	0.006	0.431	0.458	0.33	-0.05	2.17	0.756	7.18%
10/2/2020	0.002	-0.021	0.993	0.006	0.430	0.456	0.31	-0.05	2.18	0.757	7.16%
10/5/2020	0.001	-0.040	1.020	0.005	0.428	0.453	0.26	-0.09	2.25	0.756	7.14%
10/6/2020	0.002	-0.064	1.056	0.005	0.424	0.445	0.30	-0.15	2.37	0.756	7.13%
10/7/2020	0.002	-0.063	1.057	0.005	0.423	0.444	0.29	-0.15	2.38	0.757	7.11%
10/8/2020	0.002	-0.066	1.069	0.005	0.422	0.442	0.33	-0.16	2.42	0.756	7.09%
10/9/2020	0.002	-0.064	1.067	0.005	0.420	0.441	0.35	-0.15	2.42	0.756	7.07%
10/12/2020	0.002	-0.066	1.066	0.005	0.419	0.440	0.31	-0.16	2.42	0.756	7.06%
10/13/2020	0.001	-0.078	1.073	0.005	0.418	0.439	0.26	-0.19	2.44	0.756	7.05%
10/14/2020	0.001	-0.071	1.066	0.005	0.417	0.437	0.23	-0.17	2.44	0.756	7.03%
10/15/2020	0.001	-0.073	1.068	0.005	0.415	0.436	0.23	-0.17	2.45	0.756	7.01%
10/16/2020	0.001	-0.067	1.060	0.005	0.411	0.430	0.24	-0.16	2.47	0.756	6.99%
10/19/2020	0.001	-0.060	1.052	0.005	0.410	0.429	0.20	-0.15	2.45	0.756	6.98%
10/20/2020	0.001	-0.063	1.064	0.005	0.409	0.428	0.15	-0.15	2.49	0.756	6.96%
10/21/2020	0.001	-0.076	1.078	0.005	0.408	0.426	0.11	-0.19	2.53	0.755	6.95%
10/22/2020	0.000	-0.089	1.095	0.005	0.406	0.424	0.07	-0.22	2.58	0.755	6.94%
10/23/2020	0.000	-0.084	1.086	0.005	0.405	0.423	0.04	-0.21	2.57	0.755	6.92%
10/26/2020	0.001	-0.081	1.085	0.005	0.405	0.422	0.10	-0.20	2.57	0.755	6.91%
10/27/2020	0.000	-0.072	1.080	0.005	0.403	0.421	0.08	-0.18	2.57	0.754	6.90%
10/28/2020	0.000	-0.071	1.079	0.005	0.402	0.419	0.07	-0.18	2.57	0.755	6.88%
10/29/2020	0.000	-0.062	1.078	0.005	0.400	0.418	0.05	-0.15	2.58	0.755	6.86%
10/30/2020	0.000	-0.061	1.077	0.005	0.399	0.417	0.05	-0.15	2.58	0.755	6.84%
11/2/2020	0.000	-0.070	1.094	0.005	0.398	0.416	0.01	-0.17	2.63	0.755	6.83%
11/3/2020	0.000	-0.038	1.067	0.005	0.398	0.415	0.10	-0.10	2.57	0.753	6.84%
11/4/2020	0.001	-0.036	1.067	0.005	0.396	0.414	0.11	-0.09	2.58	0.757	6.82%
11/5/2020	0.001	-0.036	1.067	0.005	0.396	0.414	0.11	-0.09	2.58	0.756	6.82%
11/6/2020	0.000	-0.107	1.131	0.005	0.394	0.413	0.01	-0.27	2.74	0.754	6.84%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
11/9/2020	0.000	-0.091	1.112	0.005	0.392	0.410	0.05	-0.23	2.71	0.753	6.83%
11/10/2020	0.000	-0.091	1.112	0.005	0.392	0.410	0.05	-0.23	2.71	0.752	6.83%
11/11/2020	0.000	-0.089	1.109	0.005	0.391	0.409	0.01	-0.23	2.71	0.753	6.81%
11/12/2020	0.000	-0.095	1.123	0.005	0.391	0.409	0.09	-0.24	2.74	0.751	6.82%
11/13/2020	0.001	-0.102	1.130	0.005	0.390	0.408	0.12	-0.26	2.77	0.756	6.80%
11/16/2020	0.001	-0.102	1.130	0.005	0.390	0.408	0.12	-0.26	2.77	0.755	6.80%
11/17/2020	0.000	-0.110	1.137	0.005	0.388	0.406	0.10	-0.28	2.80	0.755	6.78%
11/18/2020	0.000	-0.111	1.138	0.005	0.387	0.405	0.08	-0.29	2.81	0.755	6.77%
11/19/2020	0.000	-0.122	1.156	0.005	0.386	0.404	0.04	-0.32	2.87	0.755	6.76%
11/20/2020	0.000	-0.122	1.156	0.005	0.385	0.402	0.04	-0.32	2.87	0.755	6.74%
11/23/2020	0.000	-0.113	1.147	0.005	0.384	0.401	0.01	-0.30	2.86	0.755	6.73%
11/24/2020	0.000	-0.120	1.151	0.005	0.383	0.400	-0.03	-0.31	2.88	0.755	6.71%
11/25/2020	0.000	-0.103	1.135	0.005	0.379	0.397	0.00	-0.27	2.86	0.755	6.70%
11/27/2020	0.000	-0.109	1.143	0.005	0.378	0.396	0.04	-0.29	2.89	0.754	6.69%
11/30/2020	0.000	-0.104	1.137	0.005	0.374	0.390	0.03	-0.28	2.92	0.755	6.67%
12/1/2020	0.000	-0.088	1.118	0.005	0.372	0.388	0.00	-0.24	2.89	0.754	6.66%
12/2/2020	0.000	-0.093	1.122	0.005	0.371	0.387	-0.03	-0.25	2.90	0.754	6.65%
12/3/2020	0.000	-0.096	1.125	0.005	0.370	0.386	-0.05	-0.26	2.92	0.754	6.63%
12/4/2020	0.000	-0.098	1.127	0.005	0.369	0.384	-0.04	-0.26	2.93	0.754	6.62%
12/7/2020	0.000	-0.097	1.128	0.005	0.369	0.384	-0.02	-0.26	2.94	0.754	6.60%
12/8/2020	0.000	-0.097	1.128	0.005	0.368	0.383	-0.04	-0.26	2.95	0.755	6.59%
12/9/2020	0.000	-0.104	1.139	0.005	0.366	0.381	-0.01	-0.28	2.99	0.755	6.57%
12/10/2020	0.000	-0.100	1.132	0.004	0.365	0.379	0.01	-0.27	2.98	0.755	6.56%
12/11/2020	0.000	-0.087	1.114	0.004	0.364	0.378	-0.03	-0.24	2.95	0.754	6.55%
12/14/2020	0.000	-0.094	1.121	0.004	0.364	0.377	0.02	-0.26	2.97	0.754	6.54%
12/15/2020	0.000	-0.094	1.121	0.004	0.364	0.377	0.02	-0.26	2.97	0.753	6.54%
12/16/2020	0.000	-0.083	1.112	0.004	0.362	0.376	0.05	-0.23	2.96	0.753	6.53%
12/17/2020	0.000	-0.083	1.112	0.004	0.361	0.375	0.05	-0.23	2.97	0.753	6.52%
12/18/2020	0.000	-0.087	1.120	0.004	0.360	0.374	0.08	-0.24	3.00	0.753	6.50%
12/21/2020	0.000	-0.081	1.114	0.004	0.360	0.373	0.05	-0.23	2.99	0.753	6.49%
12/22/2020	0.000	-0.070	1.102	0.004	0.359	0.372	-0.01	-0.20	2.96	0.752	6.49%
12/23/2020	0.000	-0.069	1.100	0.004	0.358	0.372	-0.03	-0.19	2.96	0.752	6.47%
12/24/2020	0.000	-0.069	1.100	0.004	0.358	0.371	-0.03	-0.19	2.97	0.752	6.46%
12/28/2020	0.000	-0.066	1.096	0.004	0.356	0.369	-0.02	-0.19	2.97	0.752	6.45%
12/29/2020	0.000	-0.083	1.116	0.004	0.354	0.367	-0.05	-0.23	3.04	0.752	6.44%
12/30/2020	0.000	-0.092	1.129	0.004	0.353	0.366	-0.10	-0.26	3.09	0.752	6.43%
12/31/2020	0.000	-0.093	1.130	0.004	0.353	0.365	-0.08	-0.26	3.10	0.752	6.41%
1/4/2021	0.000	-0.097	1.135	0.004	0.352	0.364	-0.10	-0.27	3.12	0.752	6.40%
1/5/2021	0.000	-0.097	1.135	0.004	0.352	0.364	-0.10	-0.27	3.12	0.751	6.40%
1/6/2021	0.000	-0.079	1.121	0.004	0.352	0.364	-0.02	-0.22	3.08	0.750	6.41%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
1/7/2021	0.000	-0.084	1.131	0.004	0.351	0.363	0.03	-0.24	3.11	0.750	6.40%
1/8/2021	0.000	-0.082	1.129	0.004	0.350	0.361	0.03	-0.24	3.13	0.750	6.39%
1/11/2021	0.000	-0.082	1.128	0.004	0.349	0.360	0.02	-0.24	3.13	0.750	6.37%
1/12/2021	0.000	-0.081	1.127	0.004	0.348	0.359	0.01	-0.23	3.14	0.750	6.36%
1/13/2021	0.000	-0.081	1.127	0.004	0.348	0.359	0.00	-0.23	3.14	0.757	6.35%
1/14/2021	0.001	-0.054	1.095	0.004	0.368	0.379	0.33	-0.15	2.89	0.727	6.71%
1/15/2021	0.001	0.022	1.002	0.004	0.367	0.378	0.22	0.06	2.65	0.723	6.75%
1/19/2021	0.001	0.017	1.006	0.004	0.367	0.377	0.21	0.05	2.67	0.726	6.75%
1/20/2021	0.002	-0.020	1.069	0.004	0.372	0.383	0.40	-0.05	2.80	0.718	6.85%
1/21/2021	0.001	-0.040	1.086	0.004	0.372	0.383	0.33	-0.11	2.83	0.717	6.86%
1/22/2021	0.001	-0.041	1.088	0.004	0.372	0.383	0.33	-0.11	2.84	0.717	6.86%
1/25/2021	0.002	-0.052	1.100	0.004	0.372	0.383	0.39	-0.14	2.87	0.719	6.87%
1/26/2021	0.003	-0.083	1.133	0.005	0.376	0.387	0.63	-0.22	2.93	0.716	6.93%
1/27/2021	0.004	0.005	1.017	0.005	0.384	0.394	0.83	0.01	2.58	0.702	7.10%
1/28/2021	0.003	0.010	0.979	0.005	0.379	0.389	0.73	0.03	2.52	0.708	7.01%
1/29/2021	0.003	-0.005	0.988	0.005	0.380	0.389	0.70	-0.01	2.54	0.707	7.02%
2/1/2021	0.004	-0.018	0.996	0.005	0.379	0.390	0.77	-0.05	2.56	0.708	7.02%
2/2/2021	0.004	0.013	0.987	0.005	0.382	0.393	0.88	0.03	2.51	0.752	7.07%
2/3/2021	0.008	0.142	0.965	0.006	0.498	0.513	1.31	0.29	1.88	0.592	9.23%
2/4/2021	0.010	0.197	0.901	0.006	0.521	0.537	1.54	0.38	1.68	0.564	9.64%
2/5/2021	0.008	0.196	0.863	0.006	0.535	0.553	1.31	0.37	1.56	0.552	9.89%
2/8/2021	0.007	0.284	0.731	0.007	0.551	0.569	1.05	0.52	1.28	0.531	10.19%
2/9/2021	0.007	0.286	0.725	0.007	0.552	0.570	1.08	0.52	1.27	0.530	10.21%
2/10/2021	0.007	0.275	0.740	0.007	0.552	0.570	1.05	0.50	1.30	0.531	10.21%
2/11/2021	0.007	0.274	0.741	0.007	0.553	0.572	1.04	0.49	1.30	0.529	10.24%
2/12/2021	0.007	0.275	0.740	0.007	0.553	0.572	1.05	0.50	1.30	0.530	10.24%
2/16/2021	0.007	0.277	0.735	0.007	0.554	0.572	1.02	0.50	1.28	0.530	10.24%
2/17/2021	0.007	0.275	0.738	0.007	0.555	0.573	1.05	0.50	1.29	0.528	10.26%
2/18/2021	0.007	0.277	0.736	0.007	0.555	0.573	1.05	0.50	1.28	0.528	10.26%
2/19/2021	0.007	0.275	0.742	0.007	0.554	0.571	1.08	0.50	1.30	0.529	10.25%
2/22/2021	0.007	0.262	0.760	0.007	0.554	0.571	1.11	0.47	1.33	0.529	10.26%
2/23/2021	0.007	0.272	0.761	0.007	0.553	0.569	1.04	0.49	1.34	0.529	10.25%
2/24/2021	0.007	0.257	0.764	0.007	0.552	0.567	1.06	0.47	1.35	0.529	10.25%
2/25/2021	0.007	0.260	0.763	0.007	0.553	0.567	1.06	0.47	1.35	0.529	10.25%
2/26/2021	0.007	0.213	0.819	0.007	0.554	0.568	1.12	0.38	1.44	0.531	10.22%
3/1/2021	0.007	0.213	0.809	0.007	0.554	0.569	1.10	0.39	1.42	0.530	10.23%
3/2/2021	0.008	0.190	0.831	0.007	0.554	0.569	1.14	0.34	1.46	0.530	10.22%
3/3/2021	0.008	0.198	0.796	0.007	0.554	0.569	1.14	0.36	1.40	0.530	10.22%
3/4/2021	0.008	0.181	0.817	0.007	0.552	0.564	1.13	0.33	1.45	0.531	10.22%
3/5/2021	0.007	0.172	0.865	0.007	0.552	0.566	1.11	0.31	1.53	0.530	10.23%



## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/8/2021	0.007	0.185	0.848	0.007	0.555	0.567	1.06	0.33	1.50	0.530	10.24%
3/9/2021	0.007	0.195	0.829	0.007	0.555	0.565	1.10	0.35	1.47	0.531	10.24%
3/10/2021	0.008	0.134	0.819	0.007	0.561	0.566	1.16	0.24	1.45	0.528	10.25%
3/11/2021	0.008	0.204	0.782	0.007	0.565	0.566	1.20	0.36	1.38	0.530	10.23%
3/12/2021	0.009	0.168	0.767	0.007	0.564	0.563	1.28	0.30	1.36	0.530	10.21%
3/15/2021	0.009	0.138	0.761	0.007	0.572	0.563	1.29	0.24	1.35	0.529	10.21%
3/16/2021	0.008	0.103	0.745	0.007	0.580	0.563	1.25	0.18	1.32	0.528	10.21%
3/17/2021	0.008	0.265	0.748	0.007	0.608	0.562	1.14	0.44	1.33	0.532	10.19%
3/18/2021	0.009	0.265	0.808	0.007	0.612	0.571	1.27	0.43	1.41	0.528	10.25%
3/19/2021	0.009	0.165	0.896	0.007	0.637	0.574	1.25	0.26	1.56	0.526	10.25%
3/22/2021	0.008	0.179	0.853	0.007	0.635	0.573	1.20	0.28	1.49	0.527	10.24%
3/23/2021	0.008	0.124	0.840	0.007	0.640	0.571	1.23	0.19	1.47	0.527	10.23%
3/24/2021	0.009	0.096	0.854	0.007	0.647	0.574	1.25	0.15	1.49	0.526	10.25%
3/25/2021	0.008	0.018	0.899	0.007	0.685	0.572	1.22	0.03	1.57	0.525	10.25%
3/26/2021	0.008	-0.045	0.948	0.007	0.691	0.576	1.19	-0.06	1.65	0.526	10.24%
3/29/2021	0.008	-0.091	0.973	0.007	0.688	0.575	1.15	-0.13	1.69	0.526	10.24%
3/30/2021	0.007	-0.034	0.974	0.007	0.694	0.574	1.07	-0.05	1.70	0.526	10.23%
3/31/2021	0.008	-0.018	1.026	0.007	0.693	0.576	1.11	-0.03	1.78	0.528	10.21%
4/1/2021	0.007	-0.010	1.019	0.007	0.693	0.572	1.10	-0.01	1.78	0.528	10.21%
4/5/2021	0.007	0.029	1.019	0.007	0.701	0.571	1.08	0.04	1.78	0.528	10.21%
4/6/2021	0.007	0.028	0.954	0.007	0.699	0.575	0.99	0.04	1.66	0.528	10.19%
4/7/2021	0.007	0.008	0.965	0.007	0.701	0.575	0.98	0.01	1.68	0.528	10.20%
4/8/2021	0.007	0.036	0.971	0.007	0.725	0.573	0.98	0.05	1.70	0.528	10.20%
4/9/2021	0.007	0.050	0.953	0.007	0.726	0.576	1.00	0.07	1.66	0.528	10.20%
4/12/2021	0.007	0.021	0.955	0.007	0.731	0.575	0.98	0.03	1.66	0.530	10.19%
4/13/2021	0.006	0.039	0.996	0.007	0.734	0.575	0.94	0.05	1.73	0.527	10.22%
4/14/2021	0.006	0.148	0.921	0.007	0.735	0.573	0.82	0.20	1.61	0.529	10.18%
4/15/2021	0.005	0.165	0.904	0.007	0.733	0.571	0.80	0.22	1.58	0.529	10.18%
4/16/2021	0.005	0.144	0.897	0.007	0.736	0.571	0.80	0.20	1.57	0.529	10.18%
4/19/2021	0.005	0.144	0.897	0.007	0.739	0.578	0.79	0.19	1.55	0.529	10.18%
4/20/2021	0.005	0.157	0.939	0.007	0.739	0.582	0.81	0.21	1.61	0.529	10.17%
4/21/2021	0.005	0.152	0.950	0.007	0.749	0.589	0.79	0.20	1.61	0.529	10.18%
4/22/2021	0.005	0.147	0.948	0.007	0.755	0.591	0.79	0.19	1.60	0.527	10.20%
4/23/2021	0.006	0.129	0.955	0.007	0.759	0.592	0.81	0.17	1.61	0.527	10.21%
4/26/2021	0.005	0.161	0.952	0.007	0.747	0.583	0.69	0.22	1.63	0.535	10.06%
4/27/2021	0.005	0.151	0.985	0.007	0.746	0.582	0.74	0.20	1.69	0.535	10.06%
4/28/2021	0.005	0.150	0.978	0.007	0.749	0.582	0.78	0.20	1.68	0.535	10.07%
4/29/2021	0.005	0.160	0.962	0.007	0.751	0.586	0.82	0.21	1.64	0.534	10.08%
4/30/2021	0.005	0.071	0.992	0.007	0.760	0.585	0.80	0.09	1.69	0.534	10.07%
5/3/2021	0.005	0.062	0.986	0.007	0.760	0.585	0.81	0.08	1.69	0.535	10.06%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/4/2021	0.005	0.071	0.989	0.007	0.767	0.586	0.75	0.09	1.69	0.534	10.08%
5/5/2021	0.005	0.077	0.987	0.007	0.769	0.587	0.72	0.10	1.68	0.533	10.08%
5/6/2021	0.005	0.077	0.991	0.007	0.769	0.588	0.74	0.10	1.69	0.534	10.08%
5/7/2021	0.005	0.075	0.993	0.007	0.767	0.586	0.74	0.10	1.69	0.536	10.06%
5/10/2021	0.005	0.084	0.990	0.007	0.771	0.588	0.75	0.11	1.68	0.534	10.08%
5/11/2021	0.004	-0.010	1.030	0.007	0.771	0.586	0.65	-0.01	1.76	0.536	10.04%
5/12/2021	0.004	0.004	1.011	0.007	0.780	0.603	0.64	0.01	1.68	0.536	10.04%
5/13/2021	0.004	0.053	0.994	0.007	0.770	0.600	0.60	0.07	1.66	0.536	10.02%
5/14/2021	0.004	0.000	1.005	0.007	0.772	0.600	0.66	0.00	1.68	0.536	10.01%
5/17/2021	0.004	-0.002	1.030	0.007	0.775	0.601	0.68	0.00	1.72	0.536	10.02%
5/18/2021	0.005	-0.018	1.044	0.007	0.773	0.599	0.72	-0.02	1.74	0.303	10.00%
5/19/2021	0.005	-0.187	1.109	0.007	0.786	0.600	0.74	-0.24	1.85	0.303	9.99%
5/20/2021	0.005	-0.187	1.101	0.007	0.786	0.601	0.76	-0.24	1.83	0.303	9.99%
5/21/2021	0.005	-0.178	1.108	0.007	0.787	0.599	0.77	-0.23	1.85	0.303	9.99%
5/24/2021	0.005	-0.183	1.096	0.007	0.786	0.599	0.82	-0.23	1.83	0.303	9.99%
5/25/2021	0.005	-0.211	1.118	0.007	0.784	0.598	0.82	-0.27	1.87	0.303	9.99%
5/26/2021	0.005	-0.248	1.149	0.007	0.796	0.608	0.80	-0.31	1.89	0.304	9.99%
5/27/2021	0.006	-0.232	1.152	0.007	0.799	0.608	0.85	-0.29	1.89	0.304	9.99%
5/28/2021	0.006	-0.234	1.159	0.007	0.801	0.609	0.89	-0.29	1.90	0.303	10.00%
6/1/2021	0.006	-0.219	1.138	0.007	0.802	0.612	0.85	-0.27	1.86	0.302	10.01%
6/2/2021	0.006	-0.247	1.153	0.007	0.802	0.612	0.84	-0.31	1.88	0.303	10.00%
6/3/2021	0.006	-0.189	1.138	0.007	0.799	0.609	0.98	-0.24	1.87	0.305	9.95%
6/4/2021	0.007	-0.195	1.140	0.007	0.797	0.607	0.99	-0.24	1.88	0.253	9.93%
6/7/2021	0.008	-0.174	1.072	0.006	0.781	0.596	1.22	-0.22	1.80	0.260	9.74%
6/8/2021	0.008	-0.243	1.109	0.006	0.788	0.587	1.20	-0.31	1.89	0.260	9.74%
6/9/2021	0.008	-0.216	1.109	0.006	0.789	0.586	1.25	-0.27	1.89	0.261	9.73%
6/10/2021	0.007	-0.113	1.047	0.006	0.787	0.583	1.13	-0.14	1.80	0.261	9.72%
6/11/2021	0.007	-0.154	1.063	0.006	0.787	0.581	1.17	-0.20	1.83	0.266	9.70%
6/14/2021	0.008	0.029	0.998	0.006	0.834	0.583	1.20	0.04	1.71	0.259	9.75%
6/15/2021	0.008	0.073	0.988	0.006	0.838	0.585	1.23	0.09	1.69	0.257	9.76%
6/16/2021	0.008	0.061	0.997	0.006	0.838	0.584	1.19	0.07	1.71	0.259	9.76%
6/17/2021	0.008	0.038	0.988	0.006	0.843	0.585	1.26	0.05	1.69	0.255	9.79%
6/18/2021	0.008	0.042	0.983	0.006	0.844	0.585	1.25	0.05	1.68	0.255	9.79%
6/21/2021	0.008	0.028	0.995	0.006	0.839	0.584	1.30	0.03	1.70	0.258	9.78%
6/22/2021	0.009	0.049	1.026	0.006	0.851	0.601	1.39	0.06	1.71	0.260	9.80%
6/23/2021	0.009	0.049	1.026	0.006	0.851	0.601	1.39	0.06	1.71	0.260	9.80%
6/24/2021	0.009	0.051	1.031	0.006	0.851	0.601	1.41	0.06	1.72	0.260	9.80%
6/25/2021	0.008	0.362	0.991	0.006	0.852	0.594	1.24	0.42	1.67	0.269	9.69%
6/28/2021	0.008	0.389	0.994	0.006	0.852	0.593	1.26	0.46	1.67	0.270	9.69%
6/29/2021	0.008	0.491	0.997	0.006	0.859	0.593	1.22	0.57	1.68	0.271	9.68%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/30/2021	0.008	0.659	0.912	0.006	0.862	0.593	1.27	0.76	1.54	0.273	9.64%
7/1/2021	0.008	0.637	0.909	0.006	0.863	0.593	1.26	0.74	1.53	0.273	9.63%
7/2/2021	0.008	0.638	0.920	0.006	0.863	0.592	1.31	0.74	1.55	0.273	9.63%
7/6/2021	0.009	0.643	0.924	0.006	0.861	0.591	1.34	0.75	1.56	0.273	9.62%
7/7/2021	0.009	0.646	0.910	0.006	0.865	0.590	1.36	0.75	1.54	0.273	9.63%
7/8/2021	0.009	0.642	0.901	0.006	0.871	0.591	1.40	0.74	1.52	0.274	9.63%
7/9/2021	0.009	0.558	0.946	0.006	0.868	0.590	1.47	0.64	1.60	0.275	9.65%
7/12/2021	0.009	0.491	0.952	0.006	0.870	0.592	1.36	0.56	1.61	0.269	9.68%
7/13/2021	0.009	0.483	0.956	0.006	0.876	0.596	1.38	0.55	1.60	0.269	9.68%
7/14/2021	0.008	0.540	0.962	0.006	0.874	0.593	1.31	0.62	1.62	0.273	9.65%
7/15/2021	0.009	0.548	1.023	0.006	0.873	0.593	1.34	0.63	1.73	0.281	9.63%
7/16/2021	0.008	0.648	1.015	0.006	0.877	0.596	1.27	0.74	1.70	0.273	9.68%
7/19/2021	0.008	0.698	0.982	0.006	0.869	0.591	1.24	0.80	1.66	0.275	9.66%
7/20/2021	0.008	0.628	1.053	0.006	0.856	0.588	1.33	0.73	1.79	0.278	9.65%
7/21/2021	0.009	0.691	1.061	0.006	0.853	0.588	1.40	0.81	1.81	0.290	9.65%
7/22/2021	0.010	0.759	1.090	0.006	0.867	0.602	1.50	0.88	1.81	0.274	9.76%
7/23/2021	0.010	0.762	1.086	0.006	0.868	0.603	1.55	0.88	1.80	0.273	9.77%
7/26/2021	0.010	0.746	1.085	0.006	0.869	0.604	1.51	0.86	1.80	0.272	9.78%
7/27/2021	0.009	0.725	1.140	0.006	0.865	0.600	1.46	0.84	1.90	0.274	9.77%
7/28/2021	0.010	0.695	1.170	0.006	0.865	0.605	1.54	0.80	1.93	0.274	9.77%
7/29/2021	0.010	0.684	1.179	0.006	0.862	0.597	1.56	0.79	1.98	0.291	9.77%
7/30/2021	0.010	0.718	1.159	0.006	0.873	0.603	1.56	0.82	1.92	0.320	9.79%
8/2/2021	0.009	0.875	1.108	0.007	0.902	0.624	1.28	0.97	1.78	0.277	10.12%
8/3/2021	0.009	0.837	1.132	0.007	0.910	0.632	1.35	0.92	1.79	0.272	10.15%
8/4/2021	0.009	0.814	1.178	0.007	0.912	0.640	1.38	0.89	1.84	0.270	10.17%
8/5/2021	0.009	0.792	1.196	0.007	0.910	0.638	1.39	0.87	1.88	0.273	10.17%
8/6/2021	0.010	0.780	1.245	0.007	0.914	0.638	1.45	0.85	1.95	0.270	10.19%
8/9/2021	0.010	0.813	1.233	0.007	0.912	0.634	1.50	0.89	1.94	0.272	10.17%
8/10/2021	0.010	0.766	1.284	0.007	0.906	0.626	1.50	0.85	2.05	0.272	10.16%
8/11/2021	0.010	0.737	1.305	0.007	0.904	0.623	1.47	0.81	2.09	0.273	10.15%
8/12/2021	0.010	0.777	1.211	0.007	0.895	0.613	1.55	0.87	1.98	0.273	10.12%
8/13/2021	0.011	0.764	1.231	0.007	0.894	0.611	1.61	0.85	2.01	0.272	10.11%
8/16/2021	0.011	0.752	1.239	0.007	0.893	0.611	1.65	0.84	2.03	0.273	10.11%
8/17/2021	0.011	0.738	1.262	0.007	0.892	0.610	1.61	0.83	2.07	0.276	10.10%
8/18/2021	0.010	0.918	1.126	0.007	0.887	0.607	1.50	1.03	1.85	0.270	10.15%
8/19/2021	0.010	0.922	1.108	0.007	0.886	0.607	1.55	1.04	1.83	0.271	10.14%
8/20/2021	0.010	0.910	1.143	0.007	0.884	0.601	1.49	1.03	1.90	0.271	10.14%
8/23/2021	0.010	0.920	1.131	0.007	0.884	0.600	1.52	1.04	1.88	0.273	10.13%
8/24/2021	0.011	0.922	1.158	0.007	0.884	0.596	1.58	1.04	1.94	0.272	10.13%
8/25/2021	0.011	1.037	1.081	0.007	0.886	0.597	1.65	1.17	1.81	0.302	10.10%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/26/2021	0.009	1.055	1.014	0.007	0.914	0.618	1.32	1.15	1.64	0.262	10.41%
8/27/2021	0.008	1.107	1.012	0.007	0.920	0.621	1.24	1.20	1.63	0.265	10.45%
8/30/2021	0.008	0.966	1.054	0.007	0.924	0.625	1.16	1.05	1.69	0.254	10.53%
8/31/2021	0.008	0.942	1.070	0.007	0.927	0.627	1.10	1.02	1.71	0.252	10.55%
9/1/2021	0.008	0.922	1.087	0.007	0.930	0.632	1.13	0.99	1.72	0.253	10.56%
9/2/2021	0.007	0.982	1.025	0.007	0.941	0.640	1.08	1.04	1.60	0.250	10.58%
9/3/2021	0.008	0.981	1.030	0.007	0.939	0.638	1.09	1.04	1.61	0.254	10.56%
9/7/2021	0.007	1.061	1.045	0.007	0.955	0.639	1.00	1.11	1.64	0.254	10.57%
9/8/2021	0.007	1.075	1.043	0.007	0.956	0.639	0.97	1.12	1.63	0.253	10.57%
9/9/2021	0.006	1.191	1.033	0.007	0.972	0.639	0.90	1.23	1.62	0.255	10.56%
9/10/2021	0.007	1.187	1.048	0.007	0.977	0.639	0.95	1.21	1.64	0.254	10.57%
9/13/2021	0.007	1.179	1.050	0.007	0.979	0.639	0.96	1.20	1.64	0.255	10.57%
9/14/2021	0.006	1.143	1.086	0.007	0.977	0.636	0.92	1.17	1.71	0.260	10.56%
9/15/2021	0.006	1.199	1.073	0.007	0.975	0.636	0.85	1.23	1.69	0.096	10.56%
9/16/2021	0.006	1.210	1.098	0.007	0.973	0.635	0.92	1.24	1.73	0.097	10.54%
9/17/2021	0.006	1.207	1.098	0.007	0.973	0.635	0.93	1.24	1.73	0.099	10.54%
9/20/2021	0.007	1.137	1.137	0.007	0.972	0.634	0.98	1.17	1.79	0.096	10.55%
9/21/2021	0.005	1.436	0.973	0.007	0.949	0.620	0.78	1.51	1.57	0.107	10.30%
9/22/2021	0.006	1.415	1.004	0.007	0.950	0.622	0.82	1.49	1.61	0.105	10.32%
9/23/2021	0.005	1.374	1.015	0.007	0.948	0.621	0.78	1.45	1.63	0.110	10.31%
9/24/2021	0.006	1.376	1.038	0.007	0.965	0.623	0.86	1.43	1.67	0.104	10.34%
9/27/2021	0.006	1.400	1.009	0.007	0.964	0.621	0.89	1.45	1.63	0.106	10.34%
9/28/2021	0.006	1.338	0.952	0.007	0.965	0.620	0.89	1.39	1.53	0.101	10.33%
9/29/2021	0.006	1.407	0.934	0.007	0.967	0.619	0.92	1.46	1.51	0.103	10.32%
9/30/2021	0.006	1.414	0.936	0.007	0.968	0.620	0.88	1.46	1.51	0.102	10.32%
10/1/2021	0.006	1.413	0.939	0.007	0.964	0.618	0.89	1.47	1.52	0.102	10.32%
10/4/2021	0.006	1.370	0.977	0.007	0.953	0.610	0.89	1.44	1.60	0.106	10.32%
10/5/2021	0.006	1.405	0.977	0.007	0.952	0.613	0.87	1.48	1.59	0.103	10.33%
10/6/2021	0.006	1.421	0.967	0.007	0.950	0.620	0.88	1.50	1.56	0.104	10.33%
10/7/2021	0.006	1.376	1.008	0.007	0.952	0.619	0.83	1.45	1.63	0.101	10.35%
10/8/2021	0.006	1.365	1.003	0.007	0.954	0.620	0.81	1.43	1.62	0.101	10.35%
10/11/2021	0.005	1.372	1.006	0.007	0.956	0.620	0.79	1.43	1.62	0.101	10.35%
10/12/2021	0.006	1.398	1.007	0.007	0.954	0.619	0.82	1.46	1.63	0.101	10.34%
10/13/2021	0.006	1.460	0.997	0.007	0.957	0.619	0.87	1.52	1.61	0.104	10.33%
10/14/2021	0.006	1.457	1.005	0.007	0.960	0.620	0.91	1.52	1.62	0.103	10.33%
10/15/2021	0.006	1.392	1.005	0.007	0.957	0.621	0.87	1.46	1.62	0.103	10.35%
10/18/2021	0.006	1.343	1.038	0.007	0.957	0.626	0.82	1.40	1.66	0.101	10.36%
10/19/2021	0.006	1.337	1.041	0.007	0.955	0.624	0.86	1.40	1.67	0.102	10.35%
10/20/2021	0.006	1.302	1.018	0.007	0.959	0.624	0.83	1.36	1.63	0.099	10.37%
10/21/2021	0.006	1.315	1.006	0.007	0.960	0.625	0.84	1.37	1.61	0.099	10.36%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/22/2021	0.006	1.321	0.988	0.007	0.960	0.626	0.86	1.38	1.58	0.098	10.36%
10/25/2021	0.006	1.324	1.003	0.007	0.959	0.627	0.87	1.38	1.60	0.099	10.36%
10/26/2021	0.006	1.317	1.009	0.007	0.959	0.626	0.85	1.37	1.61	0.099	10.35%
10/27/2021	0.006	1.310	1.010	0.007	0.969	0.627	0.85	1.35	1.61	0.099	10.36%
10/28/2021	0.006	1.315	1.022	0.007	0.971	0.627	0.83	1.35	1.63	0.099	10.36%
10/29/2021	0.005	1.328	1.003	0.007	0.999	0.626	0.79	1.33	1.60	0.098	10.36%
11/1/2021	0.005	1.335	1.005	0.007	1.001	0.626	0.78	1.33	1.61	0.098	10.36%
11/2/2021	0.006	1.314	1.008	0.007	1.003	0.625	0.81	1.31	1.61	0.112	10.36%
11/3/2021	0.006	1.219	1.080	0.007	1.017	0.631	0.92	1.20	1.71	0.095	10.45%
11/4/2021	0.006	1.234	1.058	0.007	1.025	0.630	0.89	1.20	1.68	0.135	10.46%
11/5/2021	0.008	1.539	0.774	0.007	1.050	0.643	1.08	1.46	1.20	0.073	10.75%
11/8/2021	0.008	1.903	0.597	0.007	1.061	0.636	1.16	1.79	0.94	0.075	10.72%
11/9/2021	0.008	1.893	0.607	0.007	1.062	0.638	1.14	1.78	0.95	0.081	10.72%
11/10/2021	0.007	1.896	0.641	0.007	1.063	0.638	1.06	1.78	1.00	0.083	10.73%
11/11/2021	0.008	1.889	0.645	0.007	1.065	0.640	1.08	1.77	1.01	0.079	10.75%
11/12/2021	0.008	1.879	0.630	0.007	1.065	0.640	1.07	1.76	0.99	0.080	10.75%
11/15/2021	0.007	1.873	0.631	0.007	1.070	0.641	1.00	1.75	0.98	0.083	10.76%
11/16/2021	0.007	1.871	0.647	0.007	1.071	0.641	0.92	1.75	1.01	0.057	10.77%
11/17/2021	0.007	1.927	0.628	0.007	1.077	0.642	0.95	1.79	0.98	0.081	10.76%
11/18/2021	0.006	2.061	0.588	0.007	1.089	0.650	0.78	1.89	0.90	0.057	10.90%
11/19/2021	0.006	2.048	0.572	0.007	1.090	0.651	0.81	1.88	0.88	0.058	10.90%
11/22/2021	0.006	2.006	0.597	0.007	1.091	0.652	0.88	1.84	0.92	0.055	10.91%
11/23/2021	0.006	1.991	0.605	0.007	1.092	0.653	0.90	1.82	0.93	0.055	10.91%
11/24/2021	0.007	2.026	0.597	0.007	1.094	0.653	0.92	1.85	0.91	0.058	10.91%
11/26/2021	0.007	2.070	0.583	0.007	1.110	0.658	0.97	1.86	0.89	0.056	10.92%
11/29/2021	0.007	2.062	0.582	0.007	1.076	0.651	0.96	1.92	0.89	0.057	10.92%
11/30/2021	0.007	2.017	0.595	0.007	1.077	0.660	0.94	1.87	0.90	0.056	10.92%
12/1/2021	0.007	1.968	0.614	0.007	1.067	0.662	0.96	1.84	0.93	0.059	10.92%
12/2/2021	0.007	2.047	0.621	0.007	1.066	0.661	0.96	1.92	0.94	0.058	10.92%
12/3/2021	0.007	1.989	0.634	0.007	1.058	0.661	0.95	1.88	0.96	0.059	10.92%
12/6/2021	0.007	1.998	0.644	0.007	1.058	0.660	0.94	1.89	0.98	0.059	10.93%
12/7/2021	0.007	1.908	0.699	0.007	1.047	0.652	0.91	1.82	1.07	0.059	10.93%
12/8/2021	0.007	1.909	0.703	0.007	1.044	0.648	0.93	1.83	1.08	0.060	10.93%
12/9/2021	0.007	1.910	0.703	0.007	1.045	0.649	0.93	1.83	1.08	0.062	10.93%
12/10/2021	0.006	1.938	0.732	0.007	1.045	0.649	0.88	1.85	1.13	0.061	10.94%
12/13/2021	0.006	1.884	0.781	0.007	1.041	0.647	0.89	1.81	1.21	0.061	10.94%
12/14/2021	0.006	1.873	0.788	0.007	1.031	0.642	0.87	1.82	1.23	0.062	10.93%
12/15/2021	0.006	1.838	0.799	0.007	1.026	0.640	0.91	1.79	1.25	0.065	10.91%
12/16/2021	0.006	1.797	0.772	0.007	1.032	0.641	0.87	1.74	1.20	0.063	10.93%
12/17/2021	0.006	1.813	0.770	0.007	1.030	0.641	0.86	1.76	1.20	0.063	10.93%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/20/2021	0.006	1.845	0.738	0.007	1.019	0.631	0.84	1.81	1.17	0.070	10.93%
12/21/2021	0.005	1.950	0.733	0.007	1.018	0.633	0.76	1.92	1.16	0.071	10.96%
12/22/2021	0.006	2.090	0.708	0.007	1.009	0.634	0.84	2.07	1.12	0.067	10.98%
12/23/2021	0.006	2.074	0.717	0.007	1.005	0.633	0.85	2.06	1.13	0.067	10.98%
12/27/2021	0.006	2.070	0.716	0.007	1.005	0.633	0.85	2.06	1.13	0.068	10.98%
12/28/2021	0.006	2.114	0.689	0.007	0.995	0.627	0.86	2.13	1.10	0.069	10.98%
12/29/2021	0.006	2.154	0.664	0.007	0.997	0.631	0.86	2.16	1.05	0.068	10.98%
12/30/2021	0.006	2.158	0.645	0.007	0.997	0.631	0.87	2.16	1.02	0.067	10.98%
12/31/2021	0.006	2.153	0.648	0.007	0.997	0.631	0.87	2.16	1.03	0.067	10.98%
1/3/2022	0.006	2.167	0.639	0.007	0.998	0.631	0.89	2.17	1.01	0.069	10.98%
1/4/2022	0.007	2.183	0.644	0.007	0.996	0.630	0.93	2.19	1.02	0.072	10.96%
1/5/2022	0.006	2.158	0.639	0.007	0.997	0.625	0.91	2.17	1.02	0.071	10.96%
1/6/2022	0.007	2.078	0.573	0.007	0.995	0.623	0.96	2.09	0.92	0.067	10.97%
1/7/2022	0.007	2.092	0.588	0.007	0.996	0.625	0.96	2.10	0.94	0.068	10.97%
1/10/2022	0.007	2.095	0.590	0.007	0.998	0.626	0.97	2.10	0.94	0.064	11.00%
1/11/2022	0.007	2.096	0.587	0.007	0.998	0.625	0.97	2.10	0.94	0.064	11.00%
1/12/2022	0.007	2.101	0.587	0.007	0.997	0.625	0.98	2.11	0.94	0.065	10.99%
1/13/2022	0.006	2.060	0.623	0.007	0.976	0.610	0.79	2.11	1.02	0.070	10.78%
1/14/2022	0.006	1.983	0.725	0.007	0.975	0.614	0.87	2.03	1.18	0.072	10.76%
1/18/2022	0.006	2.006	0.714	0.007	0.977	0.614	0.84	2.05	1.16	0.075	10.76%
1/19/2022	0.005	2.009	0.669	0.007	0.971	0.608	0.72	2.07	1.10	0.072	10.70%
1/20/2022	0.005	2.080	0.649	0.007	0.972	0.608	0.77	2.14	1.07	0.077	10.69%
1/21/2022	0.005	2.127	0.645	0.007	0.971	0.609	0.73	2.19	1.06	0.075	10.70%
1/24/2022	0.005	2.134	0.626	0.007	0.963	0.610	0.71	2.22	1.03	0.077	10.69%
1/25/2022	0.004	2.199	0.544	0.007	0.959	0.609	0.62	2.29	0.89	0.076	10.64%
1/26/2022	0.004	2.108	0.647	0.007	0.948	0.605	0.54	2.22	1.07	0.079	10.54%
1/27/2022	0.003	2.220	0.669	0.007	0.955	0.604	0.48	2.33	1.11	0.083	10.52%
1/28/2022	0.004	2.281	0.662	0.007	0.955	0.603	0.53	2.39	1.10	0.085	10.50%
1/31/2022	0.003	2.398	0.585	0.007	0.965	0.604	0.44	2.48	0.97	0.089	10.49%
2/1/2022	0.003	2.306	0.601	0.007	0.964	0.603	0.39	2.39	1.00	0.086	10.47%
2/2/2022	-0.001	1.607	0.651	0.006	0.807	0.502	-0.12	1.99	1.30	0.116	8.73%
2/3/2022	-0.002	1.535	0.702	0.005	0.762	0.473	-0.46	2.01	1.48	0.133	8.27%
2/4/2022	-0.001	1.626	0.760	0.005	0.727	0.456	-0.16	2.24	1.66	0.154	7.97%
2/7/2022	0.001	1.616	0.908	0.005	0.691	0.435	0.22	2.34	2.09	0.180	7.58%
2/8/2022	0.001	1.629	0.898	0.005	0.689	0.433	0.19	2.37	2.07	0.141	7.57%
2/9/2022	0.001	1.629	0.891	0.005	0.686	0.433	0.22	2.37	2.06	0.142	7.56%
2/10/2022	0.001	1.626	0.890	0.005	0.684	0.431	0.22	2.38	2.06	0.138	7.55%
2/11/2022	0.002	1.543	0.856	0.005	0.687	0.434	0.35	2.25	1.97	0.127	7.59%
2/14/2022	0.002	1.547	0.860	0.005	0.680	0.433	0.40	2.28	1.99	0.129	7.59%
2/15/2022	0.002	1.542	0.872	0.005	0.679	0.431	0.38	2.27	2.02	0.125	7.57%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/16/2022	0.002	1.514	0.863	0.005	0.678	0.431	0.36	2.23	2.00	0.124	7.58%
2/17/2022	0.002	1.514	0.868	0.005	0.678	0.431	0.34	2.23	2.01	0.126	7.58%
2/18/2022	0.001	1.536	0.850	0.005	0.674	0.431	0.27	2.28	1.97	0.125	7.56%
2/22/2022	0.001	1.528	0.841	0.005	0.673	0.432	0.29	2.27	1.95	0.128	7.56%
2/23/2022	0.001	1.580	0.825	0.005	0.672	0.433	0.24	2.35	1.90	0.128	7.57%
2/24/2022	0.001	1.611	0.827	0.005	0.671	0.434	0.22	2.40	1.91	0.131	7.58%
2/25/2022	0.001	1.672	0.835	0.005	0.678	0.433	0.23	2.47	1.93	0.130	7.58%
2/28/2022	0.001	1.614	0.847	0.005	0.672	0.433	0.23	2.40	1.95	0.129	7.58%
3/1/2022	0.001	1.658	0.840	0.005	0.680	0.433	0.25	2.44	1.94	0.131	7.57%
3/2/2022	0.001	1.667	0.861	0.005	0.680	0.434	0.20	2.45	1.98	0.129	7.58%
3/3/2022	0.001	1.640	0.867	0.005	0.675	0.437	0.19	2.43	1.98	0.131	7.58%
3/4/2022	0.001	1.621	0.872	0.005	0.677	0.438	0.18	2.39	1.99	0.125	7.59%
3/7/2022	0.001	1.661	0.880	0.005	0.677	0.437	0.26	2.45	2.01	0.131	7.57%
3/8/2022	0.001	1.680	0.900	0.005	0.659	0.436	0.20	2.55	2.07	0.132	7.56%
3/9/2022	0.001	1.670	0.906	0.005	0.657	0.434	0.22	2.54	2.09	0.126	7.55%
3/10/2022	0.001	1.660	0.898	0.005	0.653	0.434	0.22	2.54	2.07	0.126	7.55%
3/11/2022	0.001	1.659	0.895	0.005	0.654	0.436	0.24	2.54	2.06	0.125	7.55%
3/14/2022	0.001	1.662	0.894	0.005	0.653	0.436	0.25	2.55	2.05	0.130	7.55%
3/15/2022	0.001	1.700	0.910	0.005	0.652	0.437	0.23	2.61	2.08	0.130	7.56%
3/16/2022	0.001	1.712	0.908	0.005	0.649	0.437	0.23	2.64	2.08	0.132	7.56%
3/17/2022	0.000	1.698	0.880	0.005	0.640	0.431	0.08	2.65	2.04	0.134	7.48%
3/18/2022	0.001	1.684	0.859	0.005	0.640	0.432	0.13	2.63	1.99	0.129	7.48%
3/21/2022	0.000	1.672	0.850	0.005	0.640	0.434	0.09	2.61	1.96	0.128	7.48%
3/22/2022	0.001	1.663	0.873	0.005	0.639	0.433	0.14	2.60	2.02	0.130	7.47%
3/23/2022	0.001	1.660	0.867	0.005	0.638	0.431	0.12	2.60	2.01	0.132	7.46%
3/24/2022	0.001	1.648	0.828	0.005	0.639	0.434	0.20	2.58	1.91	0.128	7.47%
3/25/2022	0.001	1.641	0.826	0.005	0.638	0.435	0.18	2.57	1.90	0.127	7.47%
3/28/2022	0.001	1.739	0.793	0.005	0.638	0.431	0.26	2.73	1.84	0.131	7.44%
3/29/2022	0.001	1.732	0.786	0.005	0.637	0.432	0.25	2.72	1.82	0.130	7.44%
3/30/2022	0.001	1.723	0.763	0.005	0.638	0.431	0.22	2.70	1.77	0.129	7.44%
3/31/2022	0.001	1.722	0.768	0.005	0.638	0.434	0.22	2.70	1.77	0.129	7.44%
4/1/2022	0.001	1.728	0.765	0.005	0.635	0.433	0.21	2.72	1.77	0.129	7.44%
4/4/2022	0.001	1.772	0.747	0.005	0.636	0.430	0.25	2.79	1.74	0.131	7.44%
4/5/2022	0.001	1.777	0.735	0.005	0.635	0.430	0.27	2.80	1.71	0.152	7.43%
4/6/2022	0.001	1.882	0.740	0.005	0.641	0.436	0.14	2.94	1.70	0.137	7.51%
4/7/2022	0.000	1.927	0.718	0.005	0.638	0.435	0.09	3.02	1.65	0.136	7.51%
4/8/2022	0.000	1.942	0.701	0.005	0.640	0.435	0.06	3.04	1.61	0.135	7.52%
4/11/2022	0.001	1.996	0.641	0.005	0.636	0.434	0.15	3.14	1.48	0.136	7.47%
4/12/2022	0.001	1.987	0.649	0.005	0.636	0.435	0.17	3.13	1.49	0.136	7.47%
4/13/2022	0.001	1.976	0.657	0.005	0.638	0.437	0.20	3.10	1.50	0.137	7.47%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
4/14/2022	0.001	1.988	0.657	0.005	0.638	0.436	0.22	3.12	1.51	0.138	7.47%
4/18/2022	0.001	1.990	0.657	0.005	0.637	0.436	0.23	3.13	1.51	0.139	7.47%
4/19/2022	0.001	1.978	0.669	0.005	0.634	0.431	0.23	3.12	1.55	0.147	7.47%
4/20/2022	0.001	1.804	0.717	0.005	0.639	0.435	0.13	2.82	1.65	0.134	7.54%
4/21/2022	0.000	1.820	0.704	0.005	0.640	0.435	0.05	2.85	1.62	0.133	7.54%
4/22/2022	0.000	1.874	0.705	0.005	0.640	0.435	-0.04	2.93	1.62	0.133	7.54%
4/25/2022	0.000	1.718	0.727	0.005	0.636	0.436	-0.01	2.70	1.67	0.129	7.56%
4/26/2022	0.000	1.724	0.728	0.005	0.637	0.438	0.01	2.71	1.66	0.128	7.56%
4/27/2022	0.000	1.718	0.735	0.005	0.637	0.438	-0.05	2.70	1.68	0.125	7.56%
4/28/2022	-0.001	1.698	0.754	0.005	0.636	0.438	-0.13	2.67	1.72	0.125	7.55%
4/29/2022	-0.001	1.627	0.790	0.005	0.626	0.435	-0.16	2.60	1.81	0.124	7.56%
5/2/2022	0.000	1.511	0.812	0.005	0.616	0.436	-0.10	2.45	1.86	0.121	7.57%
5/3/2022	0.000	1.523	0.798	0.005	0.615	0.434	-0.06	2.48	1.84	0.122	7.56%
5/4/2022	0.000	1.526	0.794	0.005	0.615	0.438	-0.05	2.48	1.81	0.121	7.56%
5/5/2022	-0.001	1.447	0.814	0.005	0.609	0.439	-0.11	2.38	1.85	0.119	7.56%
5/6/2022	-0.001	1.450	0.811	0.005	0.611	0.440	-0.11	2.38	1.84	0.116	7.58%
5/9/2022	0.000	1.461	0.794	0.005	0.608	0.432	-0.09	2.40	1.84	0.121	7.56%
5/10/2022	0.000	1.427	0.771	0.005	0.605	0.431	-0.04	2.36	1.79	0.120	7.56%
5/11/2022	0.000	1.442	0.761	0.005	0.608	0.432	-0.07	2.37	1.76	0.125	7.58%
5/12/2022	-0.001	1.436	0.812	0.005	0.616	0.432	-0.12	2.33	1.88	0.121	7.59%
5/13/2022	-0.001	1.445	0.804	0.005	0.615	0.427	-0.12	2.35	1.88	0.125	7.59%
5/16/2022	-0.001	1.448	0.804	0.005	0.613	0.426	-0.13	2.36	1.89	0.126	7.59%
5/17/2022	-0.001	1.422	0.820	0.005	0.613	0.426	-0.11	2.32	1.92	0.126	7.60%
5/18/2022	-0.001	1.471	0.808	0.005	0.612	0.425	-0.15	2.40	1.90	0.126	7.59%
5/19/2022	-0.001	1.372	0.831	0.005	0.601	0.425	-0.12	2.28	1.95	0.127	7.59%
5/20/2022	0.000	1.337	0.865	0.005	0.600	0.426	-0.06	2.23	2.03	0.125	7.60%
5/23/2022	0.000	1.322	0.881	0.005	0.600	0.426	-0.04	2.20	2.07	0.128	7.61%
5/24/2022	0.000	1.396	0.848	0.005	0.600	0.426	0.03	2.33	1.99	0.130	7.61%
5/25/2022	0.000	1.407	0.856	0.005	0.600	0.427	-0.01	2.34	2.01	0.130	7.62%
5/26/2022	0.000	1.424	0.846	0.005	0.599	0.426	-0.02	2.38	1.98	0.129	7.61%
5/27/2022	-0.001	1.352	0.866	0.005	0.594	0.425	-0.14	2.28	2.04	0.127	7.61%
5/31/2022	-0.001	1.341	0.868	0.005	0.592	0.425	-0.12	2.27	2.04	0.136	7.61%
6/1/2022	0.000	1.361	0.805	0.005	0.596	0.427	-0.05	2.28	1.88	0.129	7.67%
6/2/2022	-0.001	1.377	0.811	0.005	0.598	0.429	-0.19	2.30	1.89	0.122	7.69%
6/3/2022	-0.001	1.378	0.810	0.005	0.592	0.427	-0.22	2.33	1.90	0.124	7.69%
6/6/2022	-0.001	1.298	0.852	0.005	0.588	0.425	-0.17	2.21	2.00	0.120	7.70%
6/7/2022	-0.001	1.300	0.846	0.005	0.591	0.431	-0.21	2.20	1.96	0.119	7.70%
6/8/2022	-0.001	1.299	0.845	0.005	0.590	0.429	-0.23	2.20	1.97	0.119	7.70%
6/9/2022	-0.001	1.280	0.865	0.005	0.589	0.429	-0.20	2.17	2.01	0.123	7.70%
6/10/2022	-0.001	1.279	0.881	0.005	0.589	0.429	-0.19	2.17	2.05	0.125	7.70%



## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/13/2022	-0.001	1.126	0.917	0.005	0.584	0.428	-0.21	1.93	2.14	0.139	7.67%
6/14/2022	-0.001	1.267	0.919	0.005	0.578	0.430	-0.30	2.19	2.14	0.138	7.69%
6/15/2022	-0.001	1.252	0.926	0.005	0.579	0.431	-0.21	2.16	2.15	0.138	7.71%
6/16/2022	-0.001	1.266	0.949	0.005	0.577	0.429	-0.27	2.19	2.22	0.139	7.67%
6/17/2022	-0.001	1.203	0.971	0.005	0.569	0.428	-0.21	2.11	2.27	0.139	7.68%
6/21/2022	-0.001	1.232	0.949	0.005	0.566	0.420	-0.25	2.18	2.26	0.140	7.67%
6/22/2022	-0.002	1.142	0.955	0.005	0.565	0.420	-0.40	2.02	2.27	0.140	7.66%
6/23/2022	-0.002	1.094	1.000	0.005	0.564	0.418	-0.32	1.94	2.39	0.130	7.67%
6/24/2022	-0.002	1.087	1.011	0.005	0.562	0.413	-0.31	1.93	2.45	0.130	7.67%
6/27/2022	-0.002	1.030	1.021	0.005	0.556	0.413	-0.38	1.85	2.47	0.128	7.67%
6/28/2022	-0.002	1.027	1.028	0.005	0.556	0.413	-0.34	1.85	2.49	0.129	7.67%
6/29/2022	-0.002	1.027	1.024	0.005	0.554	0.412	-0.40	1.85	2.49	0.129	7.65%
6/30/2022	-0.002	1.024	1.026	0.005	0.553	0.411	-0.37	1.85	2.50	0.131	7.65%
7/1/2022	-0.002	1.036	1.022	0.005	0.553	0.411	-0.43	1.87	2.49	0.131	7.65%
7/5/2022	-0.003	1.041	0.985	0.005	0.555	0.412	-0.53	1.88	2.39	0.126	7.67%
7/6/2022	-0.003	1.049	0.973	0.005	0.554	0.410	-0.57	1.89	2.37	0.128	7.67%
7/7/2022	-0.003	1.040	0.984	0.005	0.555	0.411	-0.67	1.87	2.39	0.126	7.68%
7/8/2022	-0.004	1.012	1.004	0.005	0.555	0.411	-0.73	1.82	2.44	0.127	7.68%
7/11/2022	-0.004	1.077	0.960	0.005	0.555	0.411	-0.84	1.94	2.34	0.128	7.65%
7/12/2022	-0.004	1.134	0.950	0.005	0.553	0.408	-0.75	2.05	2.33	0.133	7.61%
7/13/2022	-0.004	1.119	0.960	0.005	0.552	0.408	-0.78	2.03	2.35	0.133	7.60%
7/14/2022	-0.004	1.117	0.971	0.005	0.551	0.408	-0.82	2.03	2.38	0.134	7.59%
7/15/2022	-0.004	1.131	0.950	0.005	0.551	0.407	-0.76	2.05	2.33	0.134	7.59%
7/18/2022	-0.003	1.096	0.968	0.005	0.545	0.404	-0.64	2.01	2.40	0.136	7.52%
7/19/2022	-0.003	1.079	0.977	0.005	0.547	0.404	-0.60	1.97	2.42	0.137	7.52%
7/20/2022	-0.003	1.107	0.950	0.005	0.550	0.407	-0.65	2.01	2.34	0.137	7.51%
7/21/2022	-0.003	1.069	0.956	0.005	0.550	0.406	-0.72	1.94	2.36	0.135	7.50%
7/22/2022	-0.005	0.976	0.982	0.005	0.537	0.397	-0.97	1.82	2.48	0.137	7.34%
7/25/2022	-0.005	0.974	0.979	0.005	0.536	0.395	-1.03	1.82	2.48	0.139	7.32%
7/26/2022	-0.005	0.982	0.975	0.005	0.537	0.395	-1.06	1.83	2.47	0.137	7.33%
7/27/2022	-0.005	0.974	0.978	0.005	0.537	0.397	-1.04	1.81	2.46	0.146	7.33%
7/28/2022	-0.006	0.807	1.051	0.005	0.536	0.399	-1.24	1.51	2.63	0.134	7.39%
7/29/2022	-0.006	0.747	1.078	0.005	0.537	0.403	-1.35	1.39	2.67	0.126	7.42%
8/1/2022	-0.006	0.726	1.091	0.005	0.532	0.401	-1.37	1.36	2.72	0.094	7.40%
8/2/2022	-0.004	0.662	1.097	0.005	0.506	0.380	-1.00	1.31	2.89	0.101	7.04%
8/3/2022	-0.005	0.637	1.117	0.004	0.502	0.377	-1.06	1.27	2.96	0.099	7.00%
8/4/2022	-0.005	0.637	1.117	0.004	0.502	0.377	-1.06	1.27	2.96	0.100	7.00%
8/5/2022	-0.005	0.723	1.031	0.004	0.503	0.376	-1.19	1.44	2.74	0.093	7.02%
8/8/2022	-0.006	0.738	0.992	0.004	0.499	0.374	-1.31	1.48	2.65	0.096	6.98%
8/9/2022	-0.005	0.733	1.001	0.004	0.501	0.375	-1.20	1.46	2.67	0.091	7.00%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/10/2022	-0.005	0.790	0.931	0.004	0.504	0.379	-1.21	1.57	2.46	0.085	6.99%
8/11/2022	-0.006	0.748	0.955	0.004	0.503	0.380	-1.28	1.49	2.51	0.086	6.99%
8/12/2022	-0.006	0.720	0.982	0.004	0.507	0.384	-1.30	1.42	2.56	0.088	6.99%
8/15/2022	-0.006	0.743	0.960	0.004	0.504	0.383	-1.38	1.48	2.50	0.087	6.96%
8/16/2022	-0.006	0.756	0.944	0.004	0.503	0.382	-1.44	1.50	2.47	0.086	6.96%
8/17/2022	-0.006	0.772	0.927	0.004	0.503	0.382	-1.40	1.54	2.43	0.129	6.96%
8/18/2022	-0.005	0.679	0.932	0.005	0.522	0.396	-1.00	1.30	2.35	0.073	7.16%
8/19/2022	-0.005	0.703	0.919	0.005	0.521	0.395	-1.00	1.35	2.32	0.073	7.16%
8/22/2022	-0.005	0.716	0.908	0.005	0.521	0.398	-1.00	1.37	2.28	0.073	7.16%
8/23/2022	-0.005	0.722	0.904	0.005	0.519	0.399	-1.01	1.39	2.27	0.074	7.16%
8/24/2022	-0.005	0.749	0.855	0.005	0.519	0.401	-1.06	1.44	2.13	0.074	7.14%
8/25/2022	-0.005	0.725	0.885	0.005	0.520	0.401	-0.99	1.39	2.21	0.070	7.16%
8/26/2022	-0.003	0.700	0.929	0.004	0.488	0.378	-0.72	1.43	2.46	0.091	6.75%
8/29/2022	-0.002	0.585	0.921	0.004	0.487	0.378	-0.48	1.20	2.44	0.087	6.76%
8/30/2022	-0.002	0.694	0.880	0.004	0.481	0.374	-0.41	1.44	2.36	0.083	6.67%
8/31/2022	-0.001	0.705	0.870	0.004	0.479	0.372	-0.30	1.47	2.34	0.084	6.65%
9/1/2022	-0.002	0.723	0.853	0.004	0.478	0.371	-0.37	1.51	2.30	0.084	6.64%
9/2/2022	-0.001	0.724	0.858	0.004	0.474	0.368	-0.31	1.53	2.33	0.086	6.61%
9/6/2022	-0.001	0.727	0.852	0.004	0.474	0.368	-0.35	1.53	2.32	0.096	6.61%
9/7/2022	-0.001	0.761	0.802	0.004	0.477	0.369	-0.15	1.60	2.17	0.083	6.65%
9/8/2022	0.000	0.755	0.809	0.004	0.477	0.368	-0.10	1.58	2.20	0.083	6.64%
9/9/2022	0.000	0.768	0.791	0.004	0.475	0.365	-0.11	1.62	2.17	0.091	6.64%
9/12/2022	0.000	0.833	0.762	0.004	0.475	0.365	-0.09	1.75	2.09	0.085	6.65%
9/13/2022	-0.001	0.840	0.760	0.004	0.474	0.365	-0.12	1.77	2.08	0.089	6.65%
9/14/2022	0.000	0.869	0.733	0.004	0.470	0.365	-0.07	1.85	2.01	0.091	6.64%
9/15/2022	0.000	0.839	0.754	0.004	0.468	0.363	0.08	1.79	2.07	0.090	6.60%
9/16/2022	0.000	0.853	0.740	0.004	0.466	0.362	0.02	1.83	2.04	0.089	6.60%
9/19/2022	0.000	0.853	0.740	0.004	0.466	0.363	0.02	1.83	2.04	0.090	6.60%
9/20/2022	0.000	0.888	0.714	0.004	0.464	0.361	-0.10	1.91	1.98	0.136	6.58%
9/21/2022	0.001	0.785	0.759	0.004	0.479	0.373	0.13	1.64	2.04	0.079	6.80%
9/22/2022	0.000	0.807	0.735	0.004	0.478	0.372	0.04	1.69	1.98	0.143	6.78%
9/23/2022	0.002	0.677	0.793	0.005	0.500	0.389	0.35	1.35	2.04	0.093	7.08%
9/26/2022	0.001	0.654	0.780	0.005	0.498	0.387	0.23	1.31	2.02	0.092	7.05%
9/27/2022	0.001	0.622	0.787	0.005	0.501	0.390	0.29	1.24	2.02	0.085	7.08%
9/28/2022	0.001	0.603	0.808	0.005	0.498	0.387	0.21	1.21	2.08	0.088	7.05%
9/29/2022	0.001	0.616	0.739	0.005	0.500	0.387	0.12	1.23	1.91	0.079	7.07%
9/30/2022	0.001	0.615	0.735	0.005	0.498	0.386	0.17	1.24	1.90	0.080	7.07%
10/3/2022	0.001	0.629	0.727	0.005	0.498	0.387	0.14	1.26	1.88	0.080	7.07%
10/4/2022	0.001	0.623	0.716	0.005	0.500	0.391	0.13	1.25	1.83	0.078	7.07%
10/5/2022	0.001	0.594	0.700	0.005	0.497	0.390	0.16	1.20	1.79	0.076	7.06%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/6/2022	0.001	0.582	0.706	0.005	0.497	0.390	0.12	1.17	1.81	0.076	7.06%
10/7/2022	0.001	0.607	0.677	0.005	0.497	0.390	0.23	1.22	1.73	0.077	7.04%
10/10/2022	0.001	0.621	0.676	0.005	0.495	0.391	0.20	1.25	1.73	0.083	7.04%
10/11/2022	0.001	0.641	0.669	0.005	0.497	0.392	0.14	1.29	1.71	0.077	7.07%
10/12/2022	0.001	0.648	0.663	0.005	0.496	0.391	0.13	1.31	1.70	0.076	7.07%
10/13/2022	0.001	0.648	0.664	0.005	0.495	0.391	0.13	1.31	1.70	0.077	7.07%
10/14/2022	0.000	0.648	0.663	0.005	0.493	0.390	0.09	1.31	1.70	0.077	7.06%
10/17/2022	0.001	0.661	0.663	0.005	0.491	0.389	0.14	1.35	1.70	0.079	7.05%
10/18/2022	0.001	0.658	0.645	0.005	0.489	0.390	0.16	1.35	1.65	0.078	7.04%
10/19/2022	0.000	0.630	0.663	0.005	0.489	0.391	0.11	1.29	1.70	0.078	7.05%
10/20/2022	0.001	0.619	0.689	0.005	0.487	0.387	0.16	1.27	1.78	0.080	7.04%
10/21/2022	0.001	0.618	0.688	0.005	0.487	0.387	0.21	1.27	1.78	0.080	7.04%
10/24/2022	0.001	0.617	0.688	0.005	0.487	0.387	0.21	1.27	1.78	0.080	7.04%
10/25/2022	0.001	0.611	0.685	0.005	0.487	0.387	0.19	1.26	1.77	0.079	7.04%
10/26/2022	0.001	0.608	0.679	0.005	0.486	0.387	0.14	1.25	1.75	0.079	7.04%
10/27/2022	0.001	0.591	0.694	0.005	0.484	0.385	0.18	1.22	1.80	0.079	7.04%
10/28/2022	0.001	0.596	0.684	0.005	0.485	0.386	0.21	1.23	1.77	0.076	7.05%
10/31/2022	0.001	0.594	0.698	0.005	0.484	0.384	0.25	1.23	1.82	0.077	7.05%
11/1/2022	0.001	0.598	0.695	0.005	0.484	0.384	0.27	1.23	1.81	0.077	7.05%
11/2/2022	0.001	0.613	0.674	0.005	0.484	0.384	0.21	1.27	1.76	0.076	7.04%
11/3/2022	0.000	0.620	0.642	0.004	0.470	0.375	0.02	1.32	1.71	0.079	6.89%
11/4/2022	0.000	0.615	0.653	0.004	0.471	0.376	0.06	1.31	1.74	0.077	6.90%
11/7/2022	-0.001	0.366	0.893	0.004	0.437	0.350	-0.31	0.84	2.55	0.102	6.39%
11/8/2022	-0.002	0.271	0.983	0.004	0.440	0.354	-0.41	0.62	2.78	0.103	6.37%
11/9/2022	-0.002	0.272	0.984	0.004	0.440	0.354	-0.38	0.62	2.78	0.103	6.37%
11/10/2022	-0.001	0.288	0.957	0.004	0.435	0.351	-0.25	0.66	2.72	0.104	6.32%
11/11/2022	-0.001	0.238	0.974	0.004	0.424	0.350	-0.29	0.56	2.78	0.100	6.31%
11/14/2022	-0.001	0.261	0.962	0.004	0.424	0.350	-0.27	0.62	2.75	0.102	6.32%
11/15/2022	0.000	0.235	0.983	0.004	0.424	0.350	-0.12	0.55	2.81	0.096	6.34%
11/16/2022	0.000	0.240	0.972	0.004	0.421	0.348	-0.03	0.57	2.80	0.112	6.30%
11/17/2022	-0.001	0.258	0.974	0.004	0.424	0.351	-0.17	0.61	2.78	0.097	6.35%
11/18/2022	0.000	0.215	1.000	0.004	0.408	0.337	0.09	0.53	2.96	0.108	6.11%
11/21/2022	0.000	0.211	1.004	0.004	0.409	0.338	0.06	0.52	2.97	0.105	6.12%
11/22/2022	0.000	0.236	0.984	0.004	0.408	0.337	-0.05	0.58	2.92	0.105	6.09%
11/23/2022	0.000	0.235	0.983	0.004	0.409	0.338	-0.05	0.58	2.91	0.102	6.10%
11/25/2022	0.000	0.246	0.975	0.004	0.408	0.337	-0.02	0.60	2.89	0.102	6.11%
11/28/2022	0.000	0.238	0.978	0.004	0.406	0.336	-0.08	0.59	2.91	0.102	6.08%
11/29/2022	0.000	0.216	0.995	0.004	0.411	0.339	-0.08	0.53	2.94	0.102	6.08%
11/30/2022	0.000	0.227	0.990	0.004	0.411	0.339	-0.02	0.55	2.92	0.102	6.08%
12/1/2022	0.000	0.212	0.988	0.004	0.412	0.339	-0.05	0.51	2.91	0.102	6.08%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/2/2022	0.000	0.212	0.969	0.004	0.412	0.339	0.00	0.51	2.86	0.101	6.07%
12/5/2022	0.000	0.207	0.979	0.004	0.413	0.339	0.06	0.50	2.89	0.104	6.07%
12/6/2022	0.000	0.224	0.972	0.004	0.413	0.340	0.04	0.54	2.86	0.100	6.08%
12/7/2022	0.000	0.252	0.945	0.004	0.417	0.344	0.09	0.60	2.75	0.108	6.07%
12/8/2022	0.001	0.224	0.957	0.004	0.418	0.346	0.15	0.54	2.77	0.098	6.10%
12/9/2022	0.001	0.231	0.952	0.004	0.418	0.346	0.15	0.55	2.75	0.096	6.10%
12/12/2022	0.001	0.250	0.916	0.004	0.418	0.345	0.24	0.60	2.65	0.097	6.09%
12/13/2022	0.001	0.289	0.893	0.004	0.420	0.348	0.33	0.69	2.57	0.096	6.10%
12/14/2022	0.001	0.292	0.896	0.004	0.423	0.350	0.36	0.69	2.56	0.094	6.10%
12/15/2022	0.001	0.305	0.889	0.004	0.422	0.349	0.32	0.72	2.54	0.105	6.09%
12/16/2022	0.001	0.357	0.889	0.004	0.422	0.351	0.28	0.85	2.54	0.100	6.11%
12/19/2022	0.001	0.356	0.888	0.004	0.422	0.350	0.30	0.84	2.53	0.100	6.11%
12/20/2022	0.001	0.318	0.924	0.004	0.427	0.355	0.33	0.75	2.60	0.101	6.10%
12/21/2022	0.002	0.279	0.930	0.004	0.421	0.350	0.47	0.66	2.65	0.102	6.03%
12/22/2022	0.001	0.151	0.995	0.004	0.418	0.347	0.26	0.36	2.87	0.110	5.95%
12/23/2022	0.001	0.217	0.951	0.004	0.420	0.349	0.15	0.52	2.73	0.101	5.99%
12/27/2022	0.001	0.217	0.951	0.004	0.421	0.350	0.14	0.51	2.72	0.112	6.00%
12/28/2022	0.000	0.083	1.082	0.004	0.427	0.353	-0.06	0.19	3.06	0.102	6.03%
12/29/2022	0.000	0.100	1.068	0.004	0.425	0.353	-0.03	0.23	3.03	0.103	6.02%
12/30/2022	0.000	0.101	1.073	0.004	0.425	0.353	0.03	0.24	3.04	0.104	6.02%
1/3/2023	0.000	0.101	1.073	0.004	0.425	0.353	0.03	0.24	3.04	0.106	6.02%
1/4/2023	0.000	0.094	1.083	0.004	0.426	0.353	-0.03	0.22	3.07	0.108	6.03%
1/5/2023	0.000	0.094	1.085	0.004	0.425	0.353	-0.05	0.22	3.08	0.104	6.02%
1/6/2023	0.000	0.061	1.117	0.004	0.425	0.355	-0.07	0.14	3.15	0.106	6.01%
1/9/2023	-0.001	0.017	1.179	0.004	0.423	0.356	-0.20	0.04	3.32	0.110	6.00%
1/10/2023	-0.001	0.050	1.146	0.004	0.420	0.352	-0.15	0.12	3.25	0.114	6.00%
1/11/2023	0.000	0.037	1.169	0.004	0.420	0.351	-0.09	0.09	3.33	0.129	6.00%
1/12/2023	0.000	0.097	1.136	0.004	0.423	0.355	0.07	0.23	3.20	0.114	6.06%
1/13/2023	0.000	0.097	1.125	0.004	0.424	0.355	-0.01	0.23	3.17	0.111	6.07%
1/17/2023	0.000	0.103	1.119	0.004	0.425	0.357	-0.01	0.24	3.14	0.110	6.07%
1/18/2023	0.000	0.105	1.108	0.004	0.425	0.357	0.04	0.25	3.10	0.108	6.06%
1/19/2023	0.000	0.103	1.111	0.004	0.425	0.358	0.05	0.24	3.11	0.109	6.06%
1/20/2023	0.000	0.120	1.077	0.004	0.425	0.360	0.08	0.28	2.99	0.106	6.06%
1/23/2023	0.001	0.144	1.065	0.004	0.423	0.360	0.13	0.34	2.96	0.107	6.06%
1/24/2023	0.001	0.147	1.053	0.004	0.422	0.359	0.26	0.35	2.94	0.144	6.04%
1/25/2023	0.001	0.140	1.055	0.004	0.423	0.359	0.28	0.33	2.93	0.143	6.05%
1/26/2023	0.001	0.142	1.046	0.004	0.423	0.360	0.14	0.34	2.91	0.138	6.05%
1/27/2023	0.000	0.153	1.047	0.004	0.422	0.359	0.11	0.36	2.92	0.140	6.05%
1/30/2023	0.001	0.160	1.040	0.004	0.422	0.359	0.15	0.38	2.89	0.142	6.05%
1/31/2023	0.001	0.170	1.038	0.004	0.423	0.360	0.13	0.40	2.88	0.139	6.06%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/1/2023	0.001	0.174	1.036	0.004	0.422	0.361	0.14	0.41	2.87	0.139	6.06%
2/2/2023	0.000	0.183	1.009	0.004	0.420	0.360	0.12	0.44	2.80	0.141	6.05%
2/3/2023	0.001	0.242	0.964	0.004	0.420	0.361	0.19	0.58	2.67	0.133	6.08%
2/6/2023	0.001	0.245	0.964	0.004	0.421	0.363	0.17	0.58	2.66	0.134	6.08%
2/7/2023	0.000	0.257	0.963	0.004	0.422	0.363	0.11	0.61	2.65	0.133	6.08%
2/8/2023	0.000	0.246	0.968	0.004	0.421	0.362	0.06	0.59	2.67	0.133	6.08%
2/9/2023	0.000	0.241	0.969	0.004	0.421	0.361	0.11	0.57	2.68	0.134	6.07%
2/10/2023	0.000	0.250	0.964	0.004	0.422	0.362	0.09	0.59	2.67	0.133	6.08%
2/13/2023	0.000	0.251	0.958	0.004	0.422	0.362	0.05	0.59	2.64	0.133	6.08%
2/14/2023	-0.001	0.237	0.998	0.004	0.419	0.361	-0.14	0.56	2.76	0.137	6.04%
2/15/2023	-0.001	0.226	1.003	0.004	0.421	0.361	-0.16	0.54	2.78	0.136	6.04%
2/16/2023	0.000	0.241	0.986	0.004	0.421	0.362	-0.11	0.57	2.72	0.135	6.04%
2/17/2023	0.000	0.238	0.990	0.004	0.421	0.363	-0.07	0.57	2.73	0.135	6.04%
2/21/2023	0.000	0.232	0.997	0.004	0.420	0.362	-0.05	0.55	2.76	0.139	6.04%
2/22/2023	0.000	0.234	0.995	0.004	0.420	0.362	-0.05	0.56	2.75	0.135	6.04%
2/23/2023	0.000	0.234	0.998	0.004	0.420	0.362	-0.07	0.56	2.76	0.135	6.04%
2/24/2023	0.000	0.211	1.007	0.004	0.418	0.360	0.02	0.50	2.79	0.136	6.02%
2/27/2023	0.000	0.200	0.999	0.004	0.418	0.359	0.08	0.48	2.78	0.134	6.01%
2/28/2023	0.000	0.195	0.985	0.004	0.417	0.359	0.00	0.47	2.74	0.131	6.00%
3/1/2023	0.000	0.199	0.983	0.004	0.419	0.360	0.01	0.47	2.73	0.128	6.01%
3/2/2023	0.000	0.194	0.987	0.004	0.419	0.359	0.02	0.46	2.75	0.128	6.01%
3/3/2023	0.000	0.200	0.983	0.004	0.417	0.358	0.04	0.48	2.75	0.131	6.00%
3/6/2023	0.000	0.206	0.984	0.004	0.419	0.359	0.06	0.49	2.74	0.130	6.00%
3/7/2023	0.001	0.217	0.959	0.004	0.417	0.358	0.14	0.52	2.68	0.130	5.99%
3/8/2023	0.000	0.226	0.961	0.004	0.417	0.358	0.10	0.54	2.69	0.130	5.99%
3/9/2023	0.001	0.165	0.994	0.004	0.421	0.358	0.15	0.39	2.77	0.129	5.98%
3/10/2023	0.001	0.163	0.988	0.004	0.421	0.359	0.16	0.39	2.76	0.129	5.98%
3/13/2023	0.001	0.158	0.983	0.004	0.422	0.360	0.14	0.38	2.73	0.124	5.99%
3/14/2023	0.000	0.154	0.989	0.004	0.417	0.354	0.12	0.37	2.79	0.124	5.99%
3/15/2023	0.001	0.152	0.986	0.004	0.417	0.354	0.14	0.36	2.78	0.123	5.99%
3/16/2023	0.001	0.137	0.981	0.004	0.414	0.353	0.24	0.33	2.78	0.124	5.96%
3/17/2023	0.001	0.131	0.980	0.004	0.414	0.352	0.23	0.32	2.78	0.122	5.96%
3/20/2023	0.001	0.129	0.968	0.004	0.414	0.354	0.20	0.31	2.74	0.116	5.97%
3/21/2023	0.001	0.128	0.956	0.004	0.414	0.354	0.15	0.31	2.70	0.114	5.96%
3/22/2023	0.001	0.117	0.968	0.004	0.412	0.353	0.15	0.28	2.74	0.119	5.96%
3/23/2023	0.000	0.129	0.976	0.004	0.413	0.354	0.09	0.31	2.75	0.115	5.98%
3/24/2023	0.000	0.131	0.973	0.004	0.413	0.354	0.09	0.32	2.75	0.115	5.98%
3/27/2023	0.000	0.126	0.993	0.004	0.412	0.354	0.03	0.30	2.80	0.117	5.97%
3/28/2023	0.000	0.124	0.993	0.004	0.413	0.354	0.02	0.30	2.80	0.117	5.97%
3/29/2023	0.000	0.122	0.995	0.004	0.415	0.357	-0.01	0.29	2.79	0.116	5.97%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/30/2023	0.000	0.124	0.995	0.004	0.414	0.357	0.00	0.30	2.79	0.117	5.97%
3/31/2023	0.000	0.127	1.003	0.004	0.413	0.357	0.05	0.31	2.81	0.117	5.97%
4/3/2023	0.000	0.126	0.999	0.004	0.413	0.357	0.06	0.30	2.80	0.117	5.97%
4/4/2023	0.000	0.108	1.008	0.004	0.414	0.357	0.08	0.26	2.82	0.117	5.96%
4/5/2023	0.000	0.103	1.015	0.004	0.415	0.360	0.09	0.25	2.82	0.117	5.96%
4/6/2023	0.000	0.108	1.011	0.004	0.415	0.359	0.08	0.26	2.82	0.117	5.96%
4/10/2023	0.001	0.076	0.984	0.004	0.406	0.351	0.29	0.19	2.80	0.120	5.84%
4/11/2023	0.001	0.020	1.028	0.004	0.406	0.351	0.31	0.05	2.93	0.120	5.82%
4/12/2023	0.001	0.013	1.039	0.004	0.406	0.351	0.39	0.03	2.96	0.121	5.82%
4/13/2023	0.002	0.013	1.038	0.004	0.405	0.350	0.41	0.03	2.96	0.122	5.81%
4/14/2023	0.002	0.013	1.034	0.004	0.405	0.350	0.42	0.03	2.95	0.121	5.81%
4/17/2023	0.002	0.013	1.036	0.004	0.405	0.350	0.41	0.03	2.96	0.123	5.81%
4/18/2023	0.002	0.009	1.041	0.004	0.406	0.352	0.45	0.02	2.96	0.121	5.82%
4/19/2023	0.002	0.005	1.040	0.004	0.406	0.351	0.48	0.01	2.96	0.120	5.82%
4/20/2023	0.002	0.017	1.027	0.004	0.409	0.356	0.46	0.04	2.88	0.120	5.82%
4/21/2023	0.002	0.092	0.996	0.004	0.405	0.352	0.59	0.23	2.83	0.126	5.75%
4/24/2023	0.003	0.082	1.006	0.004	0.402	0.349	0.70	0.20	2.88	0.129	5.71%
4/25/2023	0.003	0.073	0.985	0.004	0.401	0.348	0.77	0.18	2.83	0.128	5.69%
4/26/2023	0.002	0.115	0.982	0.004	0.401	0.348	0.67	0.29	2.82	0.129	5.69%
4/27/2023	0.002	0.125	0.964	0.004	0.400	0.347	0.61	0.31	2.78	0.130	5.68%
4/28/2023	0.002	0.152	0.947	0.004	0.397	0.346	0.66	0.38	2.74	0.129	5.67%
5/1/2023	0.003	0.161	0.942	0.004	0.397	0.346	0.72	0.41	2.72	0.129	5.67%
5/2/2023	0.003	0.171	0.935	0.004	0.404	0.350	0.72	0.42	2.67	0.128	5.68%
5/3/2023	0.003	0.192	0.929	0.004	0.409	0.351	0.69	0.47	2.65	0.124	5.69%
5/4/2023	0.003	0.190	0.936	0.004	0.407	0.350	0.72	0.47	2.67	0.125	5.69%
5/5/2023	0.003	0.187	0.937	0.004	0.407	0.350	0.72	0.46	2.68	0.125	5.69%
5/8/2023	0.003	0.204	0.929	0.004	0.409	0.351	0.73	0.50	2.65	0.126	5.69%
5/9/2023	0.003	0.214	0.918	0.004	0.408	0.350	0.77	0.52	2.63	0.147	5.68%
5/10/2023	0.003	0.207	0.928	0.004	0.412	0.357	0.76	0.50	2.60	0.143	5.69%
5/11/2023	0.003	0.206	0.919	0.004	0.412	0.360	0.78	0.50	2.55	0.141	5.69%
5/12/2023	0.003	0.211	0.911	0.004	0.412	0.359	0.82	0.51	2.53	0.144	5.68%
5/15/2023	0.003	0.248	0.826	0.004	0.410	0.361	0.90	0.61	2.29	0.136	5.65%
5/16/2023	0.003	0.242	0.832	0.004	0.414	0.366	0.89	0.58	2.27	0.138	5.66%
5/17/2023	0.003	0.215	0.832	0.004	0.413	0.364	0.80	0.52	2.29	0.133	5.65%
5/18/2023	0.003	0.245	0.805	0.004	0.411	0.363	0.72	0.60	2.22	0.134	5.63%
5/19/2023	0.002	0.226	0.793	0.004	0.409	0.362	0.63	0.55	2.19	0.130	5.62%
5/22/2023	0.002	0.249	0.781	0.004	0.412	0.362	0.59	0.60	2.16	0.131	5.62%
5/23/2023	0.002	0.280	0.750	0.004	0.412	0.362	0.55	0.68	2.07	0.129	5.61%
5/24/2023	0.002	0.290	0.738	0.004	0.411	0.362	0.51	0.70	2.04	0.129	5.60%
5/25/2023	0.002	0.245	0.759	0.004	0.411	0.361	0.45	0.60	2.10	0.130	5.59%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/26/2023	0.002	0.221	0.764	0.004	0.406	0.355	0.50	0.54	2.15	0.129	5.57%
5/30/2023	0.001	0.179	0.786	0.004	0.405	0.354	0.41	0.44	2.22	0.129	5.56%
5/31/2023	0.002	0.212	0.773	0.004	0.407	0.355	0.43	0.52	2.18	0.129	5.56%
6/1/2023	0.001	0.212	0.765	0.004	0.407	0.354	0.40	0.52	2.16	0.127	5.56%
6/2/2023	0.001	0.145	0.871	0.004	0.401	0.351	0.21	0.36	2.48	0.138	5.47%
6/5/2023	0.001	0.146	0.849	0.004	0.396	0.347	0.36	0.37	2.45	0.140	5.42%
6/6/2023	0.001	0.138	0.853	0.004	0.400	0.348	0.32	0.35	2.45	0.139	5.42%
6/7/2023	0.001	0.198	0.809	0.004	0.402	0.350	0.28	0.49	2.31	0.140	5.41%
6/8/2023	0.001	0.218	0.785	0.004	0.404	0.353	0.36	0.54	2.23	0.139	5.41%
6/9/2023	0.001	0.223	0.780	0.004	0.405	0.355	0.37	0.55	2.20	0.138	5.41%
6/12/2023	0.001	0.202	0.796	0.004	0.407	0.356	0.39	0.50	2.24	0.138	5.41%
6/13/2023	0.002	0.206	0.760	0.004	0.406	0.358	0.46	0.51	2.12	0.136	5.40%
6/14/2023	0.001	0.247	0.789	0.004	0.405	0.356	0.38	0.61	2.21	0.141	5.38%
6/15/2023	0.002	0.100	0.744	0.003	0.399	0.349	0.63	0.25	2.14	0.134	5.26%
6/16/2023	0.002	0.117	0.726	0.003	0.397	0.347	0.52	0.29	2.09	0.134	5.24%
6/20/2023	0.001	0.119	0.696	0.003	0.396	0.347	0.43	0.30	2.00	0.132	5.23%
6/21/2023	0.002	0.112	0.697	0.003	0.401	0.347	0.44	0.28	2.01	0.132	5.23%
6/22/2023	0.002	0.110	0.696	0.003	0.406	0.358	0.47	0.27	1.95	0.130	5.23%
6/23/2023	0.002	0.132	0.705	0.003	0.406	0.357	0.53	0.32	1.97	0.133	5.22%
6/26/2023	0.001	0.195	0.642	0.003	0.405	0.357	0.41	0.48	1.80	0.136	5.19%
6/27/2023	0.001	0.213	0.616	0.003	0.409	0.364	0.31	0.52	1.69	0.131	5.19%
6/28/2023	0.001	0.257	0.592	0.003	0.408	0.361	0.36	0.63	1.64	0.131	5.19%
6/29/2023	0.001	0.261	0.589	0.003	0.408	0.361	0.33	0.64	1.63	0.131	5.19%
6/30/2023	0.001	0.256	0.578	0.003	0.408	0.360	0.36	0.63	1.60	0.131	5.19%
7/3/2023	0.001	0.266	0.575	0.003	0.408	0.362	0.39	0.65	1.59	0.131	5.19%
7/5/2023	0.002	0.260	0.566	0.003	0.408	0.361	0.49	0.64	1.57	0.148	5.18%
7/6/2023	0.002	0.244	0.613	0.003	0.407	0.361	0.58	0.60	1.70	0.150	5.17%
7/7/2023	0.002	0.222	0.624	0.003	0.409	0.365	0.67	0.54	1.71	0.149	5.18%
7/10/2023	0.003	0.206	0.645	0.003	0.407	0.363	0.74	0.51	1.78	0.151	5.15%
7/11/2023	0.002	0.221	0.621	0.003	0.406	0.362	0.70	0.54	1.72	0.150	5.15%
7/12/2023	0.003	0.216	0.628	0.003	0.406	0.362	0.75	0.53	1.74	0.150	5.15%
7/13/2023	0.003	0.212	0.612	0.003	0.406	0.362	0.78	0.52	1.69	0.149	5.15%
7/14/2023	0.003	0.206	0.614	0.003	0.406	0.362	0.77	0.51	1.70	0.149	5.15%
7/17/2023	0.002	0.211	0.612	0.003	0.406	0.362	0.74	0.52	1.69	0.149	5.15%
7/18/2023	0.002	0.209	0.617	0.003	0.406	0.363	0.73	0.51	1.70	0.150	5.15%
7/19/2023	0.002	0.196	0.619	0.003	0.407	0.364	0.68	0.48	1.70	0.148	5.15%
7/20/2023	0.002	0.197	0.616	0.003	0.408	0.367	0.69	0.48	1.68	0.148	5.15%
7/21/2023	0.002	0.193	0.613	0.003	0.408	0.367	0.68	0.47	1.67	0.146	5.15%
7/24/2023	0.002	0.195	0.612	0.003	0.409	0.367	0.69	0.48	1.67	0.149	5.15%
7/25/2023	0.002	0.177	0.637	0.003	0.408	0.365	0.67	0.44	1.75	0.147	5.15%

## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
7/26/2023	0.002	0.176	0.634	0.003	0.408	0.367	0.66	0.43	1.73	0.147	5.16%
7/27/2023	0.002	0.171	0.643	0.003	0.406	0.365	0.74	0.42	1.76	0.149	5.13%
7/28/2023	0.003	0.169	0.642	0.003	0.408	0.366	0.76	0.41	1.75	0.149	5.14%
7/31/2023	0.003	0.344	0.572	0.003	0.404	0.359	0.96	0.85	1.59	0.164	5.03%
8/1/2023	0.004	0.464	0.477	0.003	0.404	0.358	1.14	1.15	1.33	0.166	4.99%
8/2/2023	0.004	0.503	0.448	0.003	0.407	0.360	1.18	1.24	1.24	0.168	4.98%
8/3/2023	0.003	0.468	0.515	0.003	0.404	0.359	1.03	1.16	1.43	0.172	4.95%
8/4/2023	0.003	0.517	0.471	0.003	0.404	0.360	0.93	1.28	1.31	0.171	4.94%
8/7/2023	0.003	0.537	0.455	0.003	0.403	0.359	0.88	1.33	1.27	0.174	4.93%
8/8/2023	0.003	0.392	0.611	0.003	0.403	0.362	0.93	0.97	1.69	0.174	4.91%
8/9/2023	0.003	0.406	0.597	0.003	0.404	0.363	0.90	1.01	1.65	0.174	4.91%
8/10/2023	0.002	0.441	0.554	0.003	0.400	0.361	0.78	1.10	1.54	0.175	4.89%
8/11/2023	0.002	0.431	0.579	0.003	0.400	0.361	0.68	1.08	1.60	0.176	4.88%
8/14/2023	0.002	0.448	0.579	0.003	0.401	0.361	0.68	1.12	1.60	0.177	4.88%
8/15/2023	0.002	0.451	0.579	0.003	0.402	0.363	0.70	1.12	1.59	0.178	4.88%
8/16/2023	0.002	0.467	0.566	0.003	0.401	0.363	0.63	1.16	1.56	0.176	4.88%
8/17/2023	0.002	0.445	0.601	0.003	0.402	0.364	0.66	1.11	1.65	0.178	4.88%
8/18/2023	0.002	0.430	0.611	0.003	0.403	0.367	0.68	1.07	1.67	0.177	4.88%
8/21/2023	0.001	0.344	0.814	0.003	0.377	0.344	0.32	0.91	2.37	0.215	4.56%
8/22/2023	0.001	0.330	0.821	0.003	0.378	0.345	0.21	0.87	2.38	0.215	4.56%
8/23/2023	0.001	0.313	0.829	0.003	0.379	0.345	0.28	0.83	2.40	0.214	4.56%
8/24/2023	0.001	0.298	0.829	0.003	0.379	0.345	0.32	0.79	2.41	0.217	4.55%
8/25/2023	0.001	0.272	0.828	0.003	0.380	0.346	0.38	0.72	2.39	0.210	4.57%
8/28/2023	0.001	0.299	0.782	0.003	0.378	0.345	0.25	0.79	2.27	0.213	4.54%
8/29/2023	0.001	0.332	0.766	0.003	0.381	0.347	0.35	0.87	2.21	0.219	4.55%
8/30/2023	0.001	0.451	0.808	0.003	0.378	0.344	0.26	1.19	2.35	0.225	4.51%
8/31/2023	0.001	0.433	0.798	0.003	0.373	0.339	0.47	1.16	2.35	0.231	4.45%
9/1/2023	0.001	0.431	0.810	0.003	0.373	0.339	0.41	1.16	2.39	0.230	4.45%
9/5/2023	0.001	0.428	0.811	0.003	0.374	0.339	0.41	1.14	2.39	0.230	4.45%
9/6/2023	0.001	0.392	0.849	0.003	0.376	0.341	0.49	1.04	2.49	0.232	4.44%
9/7/2023	0.001	0.397	0.843	0.003	0.376	0.342	0.48	1.06	2.46	0.232	4.44%
9/8/2023	0.001	0.333	0.948	0.003	0.369	0.338	0.34	0.90	2.81	0.244	4.36%
9/11/2023	0.001	0.335	0.936	0.003	0.369	0.340	0.31	0.91	2.76	0.242	4.36%
9/12/2023	0.001	0.306	0.971	0.003	0.372	0.347	0.30	0.82	2.80	0.247	4.36%
9/13/2023	0.000	0.268	0.974	0.003	0.372	0.346	0.07	0.72	2.82	0.239	4.35%
9/14/2023	0.000	0.269	0.971	0.003	0.373	0.346	0.08	0.72	2.81	0.239	4.35%
9/15/2023	0.000	0.252	0.961	0.003	0.376	0.348	0.11	0.67	2.77	0.231	4.36%
9/18/2023	0.000	0.262	0.945	0.003	0.375	0.347	0.04	0.70	2.72	0.234	4.35%
9/19/2023	0.000	0.203	1.004	0.003	0.377	0.348	0.03	0.54	2.88	0.231	4.35%
9/20/2023	0.000	0.207	0.999	0.003	0.377	0.348	0.02	0.55	2.87	0.231	4.35%



## Exhibit-21

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events

Event Date	Coefficients			Standard Error			<i>t</i> -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/21/2023	0.000	0.219	0.979	0.003	0.379	0.350	0.09	0.58	2.79	0.232	4.35%
9/22/2023	-0.001	0.395	0.930	0.003	0.348	0.322	-0.42	1.14	2.89	0.276	4.00%
9/25/2023	-0.001	0.395	0.925	0.003	0.348	0.323	-0.41	1.14	2.86	0.275	4.00%
9/26/2023	-0.002	0.607	0.838	0.002	0.296	0.275	-1.12	2.05	3.05	0.365	3.41%
9/27/2023	-0.003	0.658	0.796	0.002	0.292	0.272	-1.20	2.25	2.93	0.303	3.41%
9/28/2023	-0.003	0.665	0.848	0.002	0.286	0.267	-1.47	2.33	3.18	0.320	3.33%
9/29/2023	-0.003	0.671	0.840	0.002	0.287	0.268	-1.49	2.34	3.13	0.320	3.33%
10/2/2023	-0.003	0.614	1.013	0.002	0.282	0.269	-1.34	2.18	3.76	0.343	3.27%
10/3/2023	-0.003	0.637	0.997	0.002	0.283	0.268	-1.33	2.25	3.72	0.346	3.27%
10/4/2023	-0.002	0.575	1.014	0.002	0.286	0.271	-1.12	2.01	3.74	0.340	3.30%
10/5/2023	-0.002	0.638	1.001	0.002	0.289	0.272	-0.94	2.21	3.67	0.336	3.31%
10/6/2023	-0.002	0.691	0.997	0.002	0.289	0.270	-0.91	2.39	3.70	0.340	3.30%
10/9/2023	-0.002	0.691	0.998	0.002	0.288	0.270	-0.87	2.40	3.70	0.340	3.30%
10/10/2023	-0.002	0.702	1.004	0.002	0.287	0.268	-1.02	2.45	3.75	0.345	3.29%
10/11/2023	-0.002	0.693	1.003	0.002	0.288	0.268	-0.96	2.41	3.74	0.342	3.29%
10/12/2023	-0.002	0.658	0.999	0.002	0.285	0.265	-0.87	2.31	3.77	0.343	3.26%

**Source:** Computations performed by Crowninshield Financial Research, Inc.

**Notes:** Dummy variables were used to control for potentially abnormal returns on Cassava Form 8-K event dates. These dates are listed in Exhibit-8 and Exhibit-13. For the event study regressions on Class Period dates prior to 15 January 2021, the estimation period include all available prior synthetic stock returns. 15 January 2021 onwards, all estimation periods are the 252 trading days prior to each respective date.

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/14/2020	-0.001	0.079	0.788	0.005	0.415	0.441	-0.14	0.19	1.78	0.786	6.83%
9/15/2020	-0.001	0.079	0.788	0.005	0.415	0.441	-0.14	0.19	1.78	0.785	6.83%
9/16/2020	-0.001	0.093	0.765	0.005	0.416	0.442	-0.24	0.22	1.73	0.783	6.85%
9/17/2020	-0.001	0.094	0.764	0.005	0.414	0.441	-0.26	0.23	1.73	0.783	6.82%
9/18/2020	-0.001	0.093	0.764	0.005	0.413	0.439	-0.25	0.22	1.74	0.790	6.80%
9/21/2020	0.001	-0.062	0.920	0.006	0.443	0.471	0.13	-0.14	1.95	0.756	7.31%
9/22/2020	0.001	-0.065	0.924	0.006	0.440	0.467	0.12	-0.15	1.98	0.756	7.29%
9/23/2020	0.001	-0.061	0.925	0.006	0.440	0.467	0.18	-0.14	1.98	0.756	7.28%
9/24/2020	0.001	-0.035	0.911	0.006	0.438	0.466	0.12	-0.08	1.95	0.755	7.27%
9/25/2020	0.001	-0.035	0.910	0.006	0.436	0.463	0.12	-0.08	1.97	0.757	7.25%
9/28/2020	0.002	-0.056	0.964	0.006	0.440	0.467	0.28	-0.13	2.06	0.750	7.33%
9/29/2020	0.001	-0.068	0.973	0.006	0.439	0.466	0.24	-0.16	2.09	0.750	7.31%
9/30/2020	0.001	-0.072	0.977	0.006	0.437	0.464	0.27	-0.16	2.10	0.750	7.29%
10/1/2020	0.001	-0.072	0.977	0.006	0.436	0.463	0.27	-0.17	2.11	0.750	7.27%
10/2/2020	0.001	-0.072	0.975	0.006	0.435	0.461	0.25	-0.17	2.11	0.750	7.25%
10/5/2020	0.001	-0.091	1.002	0.006	0.432	0.458	0.21	-0.21	2.19	0.750	7.23%
10/6/2020	0.001	-0.117	1.041	0.005	0.428	0.450	0.24	-0.27	2.31	0.750	7.22%
10/7/2020	0.001	-0.116	1.042	0.005	0.427	0.449	0.23	-0.27	2.32	0.750	7.20%
10/8/2020	0.001	-0.120	1.054	0.005	0.426	0.447	0.27	-0.28	2.36	0.750	7.18%
10/9/2020	0.002	-0.117	1.051	0.005	0.425	0.446	0.29	-0.27	2.36	0.750	7.16%
10/12/2020	0.001	-0.119	1.051	0.005	0.424	0.445	0.25	-0.28	2.36	0.750	7.15%
10/13/2020	0.001	-0.131	1.058	0.005	0.423	0.444	0.20	-0.31	2.38	0.749	7.14%
10/14/2020	0.001	-0.124	1.051	0.005	0.421	0.442	0.18	-0.29	2.37	0.749	7.12%
10/15/2020	0.001	-0.125	1.053	0.005	0.420	0.441	0.17	-0.30	2.39	0.749	7.10%
10/16/2020	0.001	-0.119	1.045	0.005	0.415	0.435	0.18	-0.29	2.40	0.750	7.08%
10/19/2020	0.001	-0.113	1.038	0.005	0.414	0.434	0.14	-0.27	2.39	0.750	7.07%
10/20/2020	0.000	-0.116	1.049	0.005	0.414	0.433	0.10	-0.28	2.42	0.749	7.05%
10/21/2020	0.000	-0.129	1.063	0.005	0.412	0.431	0.05	-0.31	2.47	0.749	7.04%
10/22/2020	0.000	-0.142	1.081	0.005	0.411	0.429	0.02	-0.35	2.52	0.749	7.03%
10/23/2020	0.000	-0.137	1.072	0.005	0.409	0.427	-0.01	-0.33	2.51	0.749	7.01%
10/26/2020	0.000	-0.133	1.071	0.005	0.409	0.427	0.05	-0.33	2.51	0.748	7.00%
10/27/2020	0.000	-0.125	1.066	0.005	0.407	0.426	0.02	-0.31	2.50	0.748	6.99%
10/28/2020	0.000	-0.124	1.065	0.005	0.406	0.424	0.02	-0.31	2.51	0.748	6.97%
10/29/2020	0.000	-0.114	1.063	0.005	0.404	0.423	-0.01	-0.28	2.51	0.748	6.95%
10/30/2020	0.000	-0.113	1.063	0.005	0.403	0.422	-0.01	-0.28	2.52	0.748	6.94%
11/2/2020	0.000	-0.122	1.079	0.005	0.402	0.420	-0.05	-0.30	2.57	0.748	6.92%
11/3/2020	0.000	-0.090	1.052	0.005	0.402	0.420	0.04	-0.22	2.50	0.747	6.93%
11/4/2020	0.000	-0.088	1.053	0.005	0.401	0.419	0.05	-0.22	2.51	0.750	6.91%
11/5/2020	0.000	-0.088	1.053	0.005	0.401	0.419	0.05	-0.22	2.51	0.749	6.91%
11/6/2020	0.000	-0.157	1.116	0.005	0.398	0.418	-0.04	-0.39	2.67	0.747	6.93%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
11/9/2020	0.000	-0.142	1.096	0.005	0.396	0.415	-0.01	-0.36	2.64	0.747	6.92%
11/10/2020	0.000	-0.159	1.114	0.005	0.394	0.412	-0.04	-0.40	2.70	0.747	6.90%
11/11/2020	0.000	-0.156	1.111	0.005	0.393	0.411	-0.07	-0.40	2.70	0.747	6.89%
11/12/2020	0.000	-0.163	1.125	0.005	0.393	0.411	0.00	-0.41	2.74	0.746	6.89%
11/13/2020	0.000	-0.170	1.132	0.005	0.391	0.410	0.03	-0.44	2.76	0.751	6.87%
11/16/2020	0.000	-0.170	1.132	0.005	0.391	0.410	0.03	-0.44	2.76	0.750	6.87%
11/17/2020	0.000	-0.177	1.138	0.005	0.390	0.408	0.01	-0.46	2.79	0.750	6.86%
11/18/2020	0.000	-0.178	1.140	0.005	0.389	0.407	0.00	-0.46	2.80	0.750	6.84%
11/19/2020	0.000	-0.189	1.158	0.005	0.388	0.406	-0.05	-0.49	2.85	0.749	6.83%
11/20/2020	0.000	-0.189	1.158	0.005	0.386	0.404	-0.05	-0.49	2.86	0.750	6.81%
11/23/2020	0.000	-0.180	1.148	0.005	0.385	0.403	-0.08	-0.47	2.85	0.749	6.80%
11/24/2020	-0.001	-0.186	1.153	0.005	0.384	0.402	-0.11	-0.49	2.87	0.749	6.79%
11/25/2020	0.000	-0.169	1.136	0.005	0.381	0.399	-0.08	-0.44	2.85	0.749	6.77%
11/27/2020	0.000	-0.176	1.144	0.005	0.380	0.398	-0.04	-0.46	2.87	0.749	6.76%
11/30/2020	0.000	-0.171	1.138	0.005	0.376	0.392	-0.05	-0.46	2.90	0.749	6.75%
12/1/2020	0.000	-0.155	1.120	0.005	0.374	0.390	-0.08	-0.41	2.87	0.749	6.74%
12/2/2020	-0.001	-0.160	1.123	0.005	0.373	0.389	-0.11	-0.43	2.89	0.749	6.72%
12/3/2020	-0.001	-0.162	1.126	0.005	0.372	0.388	-0.13	-0.44	2.90	0.749	6.71%
12/4/2020	-0.001	-0.164	1.129	0.005	0.371	0.387	-0.12	-0.44	2.92	0.749	6.69%
12/7/2020	0.000	-0.163	1.130	0.005	0.370	0.386	-0.10	-0.44	2.93	0.749	6.68%
12/8/2020	-0.001	-0.163	1.130	0.005	0.369	0.385	-0.12	-0.44	2.93	0.749	6.66%
12/9/2020	0.000	-0.171	1.140	0.005	0.368	0.383	-0.09	-0.46	2.98	0.749	6.65%
12/10/2020	0.000	-0.167	1.133	0.004	0.367	0.382	-0.07	-0.46	2.97	0.749	6.63%
12/11/2020	-0.001	-0.154	1.116	0.004	0.366	0.380	-0.12	-0.42	2.94	0.749	6.63%
12/14/2020	0.000	-0.161	1.123	0.004	0.365	0.380	-0.06	-0.44	2.96	0.748	6.62%
12/15/2020	0.000	-0.161	1.123	0.004	0.365	0.380	-0.06	-0.44	2.96	0.747	6.62%
12/16/2020	0.000	-0.150	1.114	0.004	0.364	0.378	-0.04	-0.41	2.94	0.747	6.61%
12/17/2020	0.000	-0.150	1.113	0.004	0.363	0.377	-0.03	-0.41	2.95	0.747	6.59%
12/18/2020	0.000	-0.154	1.122	0.004	0.362	0.376	0.00	-0.43	2.98	0.747	6.58%
12/21/2020	0.000	-0.148	1.115	0.004	0.361	0.375	-0.03	-0.41	2.97	0.747	6.57%
12/22/2020	0.000	-0.137	1.104	0.004	0.361	0.375	-0.09	-0.38	2.95	0.746	6.56%
12/23/2020	0.000	-0.136	1.102	0.004	0.360	0.374	-0.11	-0.38	2.95	0.746	6.55%
12/24/2020	0.000	-0.136	1.102	0.004	0.359	0.373	-0.11	-0.38	2.96	0.746	6.54%
12/28/2020	0.000	-0.133	1.098	0.004	0.358	0.372	-0.10	-0.37	2.96	0.746	6.52%
12/29/2020	-0.001	-0.149	1.118	0.004	0.356	0.369	-0.13	-0.42	3.03	0.746	6.51%
12/30/2020	-0.001	-0.158	1.130	0.004	0.355	0.368	-0.18	-0.45	3.07	0.746	6.50%
12/31/2020	-0.001	-0.159	1.132	0.004	0.354	0.367	-0.16	-0.45	3.08	0.746	6.49%
1/4/2021	-0.001	-0.162	1.136	0.004	0.353	0.366	-0.17	-0.46	3.10	0.746	6.48%
1/5/2021	-0.001	-0.162	1.136	0.004	0.353	0.366	-0.17	-0.46	3.10	0.745	6.48%
1/6/2021	0.000	-0.145	1.122	0.004	0.353	0.366	-0.09	-0.41	3.06	0.744	6.48%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
1/7/2021	0.000	-0.150	1.132	0.004	0.353	0.366	-0.05	-0.43	3.10	0.744	6.48%
1/8/2021	0.000	-0.149	1.130	0.004	0.352	0.363	-0.05	-0.42	3.11	0.744	6.46%
1/11/2021	0.000	-0.149	1.130	0.004	0.351	0.363	-0.05	-0.42	3.12	0.744	6.45%
1/12/2021	0.000	-0.148	1.129	0.004	0.350	0.362	-0.06	-0.42	3.12	0.744	6.44%
1/13/2021	0.000	-0.148	1.129	0.004	0.349	0.361	-0.07	-0.42	3.13	0.751	6.42%
1/14/2021	0.001	-0.121	1.097	0.004	0.369	0.381	0.25	-0.33	2.88	0.722	6.78%
1/15/2021	0.001	-0.046	1.005	0.004	0.368	0.379	0.14	-0.12	2.65	0.718	6.81%
1/19/2021	0.001	-0.051	1.009	0.004	0.368	0.379	0.14	-0.14	2.66	0.721	6.81%
1/20/2021	0.001	-0.089	1.072	0.004	0.373	0.384	0.32	-0.24	2.79	0.713	6.91%
1/21/2021	0.001	-0.108	1.089	0.004	0.373	0.385	0.25	-0.29	2.83	0.712	6.92%
1/22/2021	0.001	-0.110	1.090	0.004	0.373	0.384	0.25	-0.29	2.84	0.712	6.92%
1/25/2021	0.001	-0.121	1.103	0.004	0.373	0.384	0.31	-0.32	2.87	0.714	6.93%
1/26/2021	0.003	-0.152	1.136	0.005	0.377	0.388	0.55	-0.40	2.92	0.711	7.00%
1/27/2021	0.003	-0.065	1.021	0.005	0.385	0.396	0.75	-0.17	2.58	0.697	7.15%
1/28/2021	0.003	-0.060	0.983	0.005	0.380	0.390	0.64	-0.16	2.52	0.703	7.06%
1/29/2021	0.003	-0.074	0.993	0.005	0.380	0.391	0.62	-0.19	2.54	0.702	7.07%
2/1/2021	0.003	-0.087	1.000	0.005	0.379	0.391	0.69	-0.23	2.56	0.703	7.08%
2/2/2021	0.004	-0.056	0.991	0.005	0.382	0.394	0.79	-0.15	2.52	0.748	7.13%
2/3/2021	0.007	0.067	0.968	0.006	0.496	0.512	1.24	0.14	1.89	0.591	9.25%
2/4/2021	0.009	0.121	0.904	0.006	0.518	0.535	1.47	0.23	1.69	0.563	9.65%
2/5/2021	0.008	0.122	0.867	0.006	0.532	0.551	1.24	0.23	1.57	0.552	9.90%
2/8/2021	0.006	0.210	0.736	0.007	0.547	0.566	0.99	0.38	1.30	0.531	10.19%
2/9/2021	0.007	0.212	0.730	0.007	0.548	0.567	1.02	0.39	1.29	0.530	10.21%
2/10/2021	0.007	0.201	0.745	0.007	0.548	0.567	0.99	0.37	1.31	0.532	10.21%
2/11/2021	0.007	0.200	0.746	0.007	0.549	0.569	0.98	0.36	1.31	0.530	10.23%
2/12/2021	0.007	0.201	0.745	0.007	0.549	0.569	0.99	0.37	1.31	0.530	10.23%
2/16/2021	0.006	0.203	0.740	0.007	0.550	0.569	0.96	0.37	1.30	0.530	10.24%
2/17/2021	0.007	0.201	0.743	0.007	0.551	0.570	0.99	0.37	1.30	0.529	10.25%
2/18/2021	0.007	0.203	0.741	0.007	0.551	0.570	0.99	0.37	1.30	0.529	10.26%
2/19/2021	0.007	0.201	0.747	0.007	0.550	0.568	1.02	0.37	1.31	0.529	10.25%
2/22/2021	0.007	0.188	0.765	0.007	0.550	0.568	1.05	0.34	1.35	0.529	10.26%
2/23/2021	0.007	0.197	0.766	0.007	0.549	0.566	0.98	0.36	1.35	0.529	10.25%
2/24/2021	0.007	0.183	0.768	0.007	0.549	0.564	1.01	0.33	1.36	0.529	10.25%
2/25/2021	0.007	0.185	0.768	0.007	0.549	0.564	1.00	0.34	1.36	0.529	10.25%
2/26/2021	0.007	0.138	0.824	0.007	0.550	0.565	1.06	0.25	1.46	0.531	10.22%
3/1/2021	0.007	0.139	0.813	0.007	0.550	0.566	1.05	0.25	1.44	0.530	10.23%
3/2/2021	0.007	0.116	0.834	0.007	0.550	0.566	1.09	0.21	1.47	0.531	10.22%
3/3/2021	0.007	0.124	0.799	0.007	0.550	0.566	1.09	0.23	1.41	0.530	10.22%
3/4/2021	0.007	0.107	0.820	0.007	0.548	0.561	1.08	0.20	1.46	0.531	10.22%
3/5/2021	0.007	0.097	0.866	0.007	0.548	0.563	1.05	0.18	1.54	0.530	10.23%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/8/2021	0.007	0.110	0.850	0.007	0.551	0.564	1.00	0.20	1.51	0.530	10.23%
3/9/2021	0.007	0.119	0.831	0.007	0.551	0.562	1.04	0.22	1.48	0.531	10.24%
3/10/2021	0.007	0.055	0.821	0.007	0.556	0.562	1.11	0.10	1.46	0.529	10.24%
3/11/2021	0.008	0.121	0.786	0.007	0.561	0.563	1.15	0.22	1.40	0.530	10.23%
3/12/2021	0.008	0.085	0.771	0.007	0.560	0.560	1.23	0.15	1.38	0.530	10.21%
3/15/2021	0.008	0.048	0.763	0.007	0.567	0.560	1.25	0.09	1.36	0.529	10.20%
3/16/2021	0.008	0.008	0.747	0.007	0.574	0.559	1.21	0.01	1.33	0.528	10.20%
3/17/2021	0.007	0.140	0.749	0.007	0.601	0.559	1.12	0.23	1.34	0.532	10.19%
3/18/2021	0.008	0.136	0.801	0.007	0.604	0.568	1.23	0.23	1.41	0.528	10.24%
3/19/2021	0.008	0.025	0.896	0.007	0.629	0.571	1.23	0.04	1.57	0.527	10.25%
3/22/2021	0.008	0.040	0.853	0.007	0.626	0.569	1.18	0.06	1.50	0.527	10.23%
3/23/2021	0.008	-0.015	0.842	0.007	0.630	0.568	1.21	-0.02	1.48	0.528	10.23%
3/24/2021	0.008	-0.063	0.889	0.007	0.635	0.562	1.22	-0.10	1.58	0.528	10.23%
3/25/2021	0.008	-0.165	0.940	0.007	0.669	0.560	1.19	-0.25	1.68	0.527	10.23%
3/26/2021	0.008	-0.228	0.990	0.007	0.674	0.564	1.16	-0.34	1.75	0.528	10.22%
3/29/2021	0.008	-0.107	1.031	0.007	0.679	0.561	1.18	-0.16	1.84	0.531	10.18%
3/30/2021	0.007	-0.049	1.030	0.007	0.685	0.561	1.10	-0.07	1.84	0.531	10.17%
3/31/2021	0.008	-0.032	1.082	0.007	0.684	0.562	1.14	-0.05	1.92	0.533	10.16%
4/1/2021	0.008	-0.023	1.074	0.007	0.683	0.558	1.12	-0.03	1.92	0.533	10.16%
4/5/2021	0.007	0.017	1.074	0.007	0.692	0.558	1.10	0.02	1.92	0.533	10.15%
4/6/2021	0.007	0.015	1.012	0.007	0.690	0.561	1.02	0.02	1.80	0.533	10.14%
4/7/2021	0.007	-0.004	1.022	0.007	0.692	0.561	1.01	-0.01	1.82	0.533	10.14%
4/8/2021	0.007	0.028	1.028	0.007	0.715	0.559	1.00	0.04	1.84	0.533	10.14%
4/9/2021	0.007	0.042	1.011	0.007	0.717	0.562	1.02	0.06	1.80	0.533	10.14%
4/12/2021	0.007	0.014	1.013	0.007	0.721	0.562	1.00	0.02	1.80	0.535	10.14%
4/13/2021	0.006	0.033	1.051	0.007	0.725	0.562	0.96	0.05	1.87	0.532	10.16%
4/14/2021	0.006	0.140	0.977	0.007	0.725	0.560	0.84	0.19	1.75	0.534	10.12%
4/15/2021	0.005	0.158	0.961	0.007	0.724	0.558	0.82	0.22	1.72	0.534	10.12%
4/16/2021	0.005	0.139	0.954	0.007	0.727	0.558	0.82	0.19	1.71	0.534	10.12%
4/19/2021	0.005	0.137	0.956	0.007	0.730	0.564	0.81	0.19	1.69	0.534	10.12%
4/20/2021	0.006	0.152	0.997	0.007	0.729	0.568	0.83	0.21	1.76	0.534	10.12%
4/21/2021	0.005	0.146	1.009	0.007	0.739	0.575	0.81	0.20	1.75	0.534	10.12%
4/22/2021	0.006	0.141	1.027	0.007	0.744	0.575	0.85	0.19	1.79	0.534	10.13%
4/23/2021	0.006	0.124	1.034	0.007	0.748	0.575	0.87	0.17	1.80	0.534	10.13%
4/26/2021	0.005	0.156	1.030	0.007	0.736	0.567	0.76	0.21	1.82	0.541	9.99%
4/27/2021	0.005	0.148	1.061	0.007	0.735	0.565	0.80	0.20	1.88	0.542	9.99%
4/28/2021	0.006	0.146	1.055	0.007	0.738	0.566	0.84	0.20	1.87	0.541	10.00%
4/29/2021	0.006	0.155	1.041	0.007	0.740	0.569	0.88	0.21	1.83	0.540	10.01%
4/30/2021	0.006	0.070	1.069	0.007	0.749	0.569	0.86	0.09	1.88	0.541	10.00%
5/3/2021	0.006	0.060	1.063	0.007	0.748	0.568	0.88	0.08	1.87	0.541	9.99%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/4/2021	0.005	0.071	1.067	0.007	0.756	0.569	0.81	0.09	1.87	0.540	10.01%
5/5/2021	0.005	0.077	1.064	0.007	0.757	0.570	0.78	0.10	1.87	0.540	10.01%
5/6/2021	0.005	0.077	1.070	0.007	0.757	0.571	0.81	0.10	1.87	0.540	10.01%
5/7/2021	0.005	0.066	1.076	0.007	0.758	0.572	0.82	0.09	1.88	0.540	10.01%
5/10/2021	0.005	0.075	1.072	0.007	0.762	0.573	0.82	0.10	1.87	0.539	10.03%
5/11/2021	0.005	-0.016	1.111	0.007	0.763	0.571	0.72	-0.02	1.95	0.540	9.99%
5/12/2021	0.005	-0.007	1.098	0.007	0.771	0.587	0.72	-0.01	1.87	0.540	9.99%
5/13/2021	0.005	0.041	1.081	0.007	0.761	0.585	0.69	0.05	1.85	0.540	9.97%
5/14/2021	0.005	-0.011	1.092	0.007	0.763	0.584	0.74	-0.01	1.87	0.541	9.96%
5/17/2021	0.005	-0.013	1.116	0.007	0.766	0.585	0.76	-0.02	1.91	0.541	9.97%
5/18/2021	0.005	-0.030	1.129	0.007	0.764	0.584	0.80	-0.04	1.93	0.310	9.95%
5/19/2021	0.005	-0.194	1.192	0.007	0.777	0.585	0.82	-0.25	2.04	0.310	9.94%
5/20/2021	0.005	-0.194	1.185	0.007	0.777	0.585	0.84	-0.25	2.02	0.310	9.95%
5/21/2021	0.006	-0.185	1.191	0.007	0.777	0.584	0.85	-0.24	2.04	0.310	9.94%
5/24/2021	0.006	-0.190	1.180	0.007	0.777	0.583	0.90	-0.24	2.02	0.310	9.94%
5/25/2021	0.006	-0.217	1.201	0.007	0.775	0.582	0.90	-0.28	2.06	0.310	9.94%
5/26/2021	0.006	-0.255	1.232	0.007	0.786	0.592	0.88	-0.32	2.08	0.311	9.94%
5/27/2021	0.006	-0.239	1.235	0.007	0.789	0.592	0.93	-0.30	2.09	0.311	9.95%
5/28/2021	0.006	-0.242	1.242	0.007	0.791	0.593	0.98	-0.31	2.09	0.309	9.95%
6/1/2021	0.006	-0.227	1.222	0.007	0.792	0.596	0.93	-0.29	2.05	0.309	9.96%
6/2/2021	0.006	-0.255	1.237	0.007	0.792	0.596	0.92	-0.32	2.08	0.310	9.95%
6/3/2021	0.007	-0.198	1.223	0.006	0.789	0.593	1.06	-0.25	2.06	0.312	9.90%
6/4/2021	0.007	-0.204	1.225	0.006	0.787	0.591	1.08	-0.26	2.07	0.260	9.88%
6/7/2021	0.008	-0.187	1.162	0.006	0.772	0.580	1.30	-0.24	2.00	0.267	9.69%
6/8/2021	0.008	-0.251	1.193	0.006	0.778	0.572	1.28	-0.32	2.09	0.267	9.69%
6/9/2021	0.008	-0.223	1.193	0.006	0.779	0.571	1.33	-0.29	2.09	0.268	9.68%
6/10/2021	0.008	-0.121	1.131	0.006	0.777	0.568	1.21	-0.16	1.99	0.268	9.67%
6/11/2021	0.008	-0.161	1.146	0.006	0.778	0.566	1.25	-0.21	2.02	0.273	9.66%
6/14/2021	0.008	0.028	1.082	0.006	0.824	0.569	1.27	0.03	1.90	0.266	9.70%
6/15/2021	0.008	0.071	1.072	0.006	0.828	0.570	1.30	0.09	1.88	0.265	9.71%
6/16/2021	0.008	0.060	1.081	0.006	0.828	0.569	1.27	0.07	1.90	0.266	9.72%
6/17/2021	0.009	0.038	1.073	0.006	0.833	0.571	1.34	0.05	1.88	0.262	9.74%
6/18/2021	0.008	0.042	1.068	0.006	0.833	0.571	1.32	0.05	1.87	0.262	9.74%
6/21/2021	0.009	0.027	1.080	0.006	0.828	0.569	1.38	0.03	1.90	0.265	9.73%
6/22/2021	0.009	0.043	1.114	0.006	0.840	0.585	1.46	0.05	1.90	0.268	9.76%
6/23/2021	0.009	0.043	1.114	0.006	0.840	0.585	1.46	0.05	1.90	0.267	9.76%
6/24/2021	0.010	0.044	1.119	0.006	0.840	0.585	1.49	0.05	1.91	0.268	9.75%
6/25/2021	0.008	0.354	1.076	0.006	0.841	0.578	1.31	0.42	1.86	0.276	9.64%
6/28/2021	0.008	0.382	1.078	0.006	0.841	0.578	1.33	0.45	1.87	0.277	9.64%
6/29/2021	0.008	0.485	1.079	0.006	0.847	0.577	1.29	0.57	1.87	0.278	9.63%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/30/2021	0.008	0.648	0.997	0.006	0.851	0.578	1.33	0.76	1.73	0.280	9.59%
7/1/2021	0.008	0.628	0.995	0.006	0.852	0.577	1.32	0.74	1.72	0.280	9.58%
7/2/2021	0.009	0.629	1.005	0.006	0.851	0.576	1.38	0.74	1.74	0.280	9.58%
7/6/2021	0.009	0.633	1.009	0.006	0.850	0.575	1.40	0.75	1.75	0.281	9.57%
7/7/2021	0.009	0.637	0.995	0.006	0.854	0.575	1.43	0.75	1.73	0.280	9.58%
7/8/2021	0.009	0.632	0.987	0.006	0.860	0.576	1.47	0.73	1.71	0.281	9.58%
7/9/2021	0.010	0.549	1.031	0.006	0.857	0.575	1.54	0.64	1.79	0.282	9.60%
7/12/2021	0.009	0.484	1.037	0.006	0.859	0.577	1.43	0.56	1.80	0.277	9.63%
7/13/2021	0.009	0.475	1.041	0.006	0.865	0.580	1.44	0.55	1.79	0.276	9.63%
7/14/2021	0.009	0.533	1.046	0.006	0.863	0.578	1.38	0.62	1.81	0.280	9.60%
7/15/2021	0.009	0.542	1.105	0.006	0.862	0.578	1.41	0.63	1.91	0.288	9.59%
7/16/2021	0.008	0.642	1.095	0.006	0.865	0.580	1.34	0.74	1.89	0.281	9.63%
7/19/2021	0.008	0.692	1.062	0.006	0.858	0.576	1.31	0.81	1.85	0.283	9.61%
7/20/2021	0.009	0.623	1.131	0.006	0.845	0.572	1.40	0.74	1.98	0.286	9.60%
7/21/2021	0.009	0.684	1.139	0.006	0.842	0.572	1.47	0.81	1.99	0.298	9.60%
7/22/2021	0.010	0.749	1.167	0.006	0.855	0.585	1.56	0.88	1.99	0.282	9.71%
7/23/2021	0.010	0.752	1.164	0.006	0.856	0.586	1.61	0.88	1.98	0.281	9.72%
7/26/2021	0.010	0.736	1.163	0.006	0.857	0.587	1.58	0.86	1.98	0.280	9.73%
7/27/2021	0.010	0.717	1.214	0.006	0.853	0.584	1.52	0.84	2.08	0.282	9.71%
7/28/2021	0.010	0.686	1.246	0.006	0.853	0.588	1.61	0.80	2.12	0.282	9.72%
7/29/2021	0.010	0.678	1.253	0.006	0.850	0.581	1.62	0.80	2.16	0.299	9.72%
7/30/2021	0.010	0.709	1.234	0.006	0.860	0.587	1.63	0.82	2.10	0.328	9.74%
8/2/2021	0.009	0.867	1.182	0.007	0.889	0.606	1.34	0.98	1.95	0.285	10.06%
8/3/2021	0.009	0.828	1.206	0.007	0.897	0.614	1.41	0.92	1.96	0.280	10.09%
8/4/2021	0.010	0.801	1.260	0.007	0.897	0.617	1.46	0.89	2.04	0.281	10.09%
8/5/2021	0.010	0.779	1.276	0.007	0.894	0.615	1.46	0.87	2.08	0.284	10.09%
8/6/2021	0.010	0.769	1.322	0.007	0.898	0.615	1.53	0.86	2.15	0.282	10.11%
8/9/2021	0.010	0.800	1.310	0.007	0.896	0.612	1.58	0.89	2.14	0.284	10.08%
8/10/2021	0.010	0.757	1.355	0.007	0.890	0.604	1.57	0.85	2.24	0.284	10.08%
8/11/2021	0.010	0.730	1.376	0.007	0.889	0.602	1.54	0.82	2.29	0.285	10.06%
8/12/2021	0.011	0.769	1.286	0.007	0.880	0.592	1.63	0.87	2.17	0.285	10.04%
8/13/2021	0.011	0.713	1.293	0.007	0.880	0.591	1.63	0.81	2.19	0.283	10.04%
8/16/2021	0.011	0.701	1.301	0.007	0.880	0.591	1.67	0.80	2.20	0.284	10.03%
8/17/2021	0.011	0.688	1.322	0.007	0.879	0.589	1.63	0.78	2.24	0.287	10.03%
8/18/2021	0.010	0.867	1.190	0.007	0.874	0.587	1.51	0.99	2.03	0.281	10.07%
8/19/2021	0.010	0.870	1.174	0.007	0.873	0.587	1.57	1.00	2.00	0.282	10.06%
8/20/2021	0.010	0.860	1.206	0.007	0.871	0.582	1.51	0.99	2.07	0.282	10.06%
8/23/2021	0.010	0.869	1.195	0.007	0.871	0.581	1.53	1.00	2.06	0.284	10.05%
8/24/2021	0.011	0.872	1.219	0.007	0.871	0.577	1.60	1.00	2.11	0.284	10.05%
8/25/2021	0.011	0.982	1.146	0.007	0.873	0.578	1.67	1.13	1.98	0.313	10.03%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/26/2021	0.009	1.001	1.082	0.007	0.901	0.598	1.34	1.11	1.81	0.273	10.33%
8/27/2021	0.008	1.053	1.079	0.007	0.906	0.601	1.25	1.16	1.80	0.276	10.37%
8/30/2021	0.008	0.915	1.121	0.007	0.910	0.605	1.17	1.01	1.85	0.266	10.45%
8/31/2021	0.008	0.892	1.136	0.007	0.913	0.606	1.11	0.98	1.87	0.264	10.47%
9/1/2021	0.008	0.871	1.153	0.007	0.916	0.611	1.15	0.95	1.89	0.265	10.48%
9/2/2021	0.007	0.928	1.095	0.007	0.927	0.619	1.09	1.00	1.77	0.261	10.50%
9/3/2021	0.008	0.927	1.100	0.007	0.925	0.617	1.11	1.00	1.78	0.266	10.48%
9/7/2021	0.007	1.008	1.113	0.007	0.940	0.618	1.01	1.07	1.80	0.265	10.49%
9/8/2021	0.007	1.022	1.110	0.007	0.941	0.618	0.98	1.09	1.80	0.265	10.49%
9/9/2021	0.006	1.137	1.099	0.007	0.957	0.618	0.91	1.19	1.78	0.267	10.48%
9/10/2021	0.007	1.134	1.113	0.007	0.962	0.618	0.96	1.18	1.80	0.266	10.49%
9/13/2021	0.007	1.127	1.116	0.007	0.964	0.618	0.97	1.17	1.81	0.267	10.49%
9/14/2021	0.006	1.092	1.148	0.007	0.962	0.615	0.93	1.14	1.87	0.271	10.48%
9/15/2021	0.006	1.148	1.135	0.007	0.961	0.615	0.86	1.20	1.84	0.109	10.48%
9/16/2021	0.006	1.159	1.159	0.007	0.958	0.614	0.94	1.21	1.89	0.111	10.46%
9/17/2021	0.006	1.156	1.160	0.007	0.958	0.614	0.94	1.21	1.89	0.113	10.46%
9/20/2021	0.007	1.087	1.197	0.007	0.957	0.613	0.99	1.14	1.95	0.110	10.47%
9/21/2021	0.005	1.381	1.038	0.007	0.935	0.600	0.79	1.48	1.73	0.120	10.23%
9/22/2021	0.006	1.361	1.068	0.007	0.936	0.602	0.83	1.45	1.78	0.118	10.24%
9/23/2021	0.005	1.322	1.078	0.007	0.934	0.601	0.79	1.42	1.80	0.123	10.24%
9/24/2021	0.006	1.322	1.101	0.007	0.950	0.603	0.88	1.39	1.83	0.118	10.26%
9/27/2021	0.006	1.346	1.072	0.007	0.950	0.601	0.90	1.42	1.79	0.119	10.26%
9/28/2021	0.006	1.284	1.020	0.007	0.950	0.600	0.90	1.35	1.70	0.114	10.25%
9/29/2021	0.006	1.350	1.002	0.007	0.952	0.599	0.93	1.42	1.67	0.116	10.24%
9/30/2021	0.006	1.357	1.004	0.007	0.954	0.600	0.89	1.42	1.67	0.115	10.25%
10/1/2021	0.006	1.357	1.006	0.007	0.949	0.598	0.90	1.43	1.68	0.116	10.25%
10/4/2021	0.006	1.317	1.041	0.007	0.939	0.591	0.90	1.40	1.76	0.119	10.25%
10/5/2021	0.006	1.352	1.041	0.007	0.938	0.593	0.88	1.44	1.75	0.117	10.25%
10/6/2021	0.006	1.368	1.032	0.007	0.936	0.600	0.89	1.46	1.72	0.118	10.25%
10/7/2021	0.006	1.326	1.071	0.007	0.938	0.599	0.84	1.41	1.79	0.115	10.27%
10/8/2021	0.006	1.315	1.067	0.007	0.940	0.599	0.83	1.40	1.78	0.115	10.27%
10/11/2021	0.005	1.321	1.069	0.007	0.942	0.600	0.81	1.40	1.78	0.114	10.27%
10/12/2021	0.006	1.347	1.070	0.007	0.940	0.599	0.84	1.43	1.79	0.115	10.26%
10/13/2021	0.006	1.408	1.060	0.007	0.943	0.598	0.88	1.49	1.77	0.117	10.25%
10/14/2021	0.006	1.404	1.068	0.007	0.945	0.600	0.92	1.49	1.78	0.117	10.26%
10/15/2021	0.006	1.341	1.068	0.007	0.942	0.601	0.88	1.42	1.78	0.116	10.27%
10/18/2021	0.006	1.292	1.101	0.007	0.943	0.605	0.84	1.37	1.82	0.114	10.28%
10/19/2021	0.006	1.287	1.104	0.007	0.941	0.603	0.87	1.37	1.83	0.116	10.28%
10/20/2021	0.006	1.252	1.082	0.007	0.945	0.604	0.84	1.32	1.79	0.112	10.29%
10/21/2021	0.006	1.265	1.071	0.007	0.946	0.604	0.85	1.34	1.77	0.112	10.28%



## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/22/2021	0.006	1.270	1.055	0.007	0.945	0.605	0.87	1.34	1.74	0.112	10.28%
10/25/2021	0.006	1.273	1.069	0.007	0.945	0.606	0.88	1.35	1.76	0.113	10.28%
10/26/2021	0.006	1.266	1.074	0.007	0.945	0.605	0.87	1.34	1.78	0.112	10.28%
10/27/2021	0.006	1.259	1.076	0.007	0.955	0.606	0.86	1.32	1.78	0.113	10.28%
10/28/2021	0.006	1.264	1.086	0.007	0.957	0.606	0.84	1.32	1.79	0.113	10.28%
10/29/2021	0.005	1.277	1.068	0.007	0.984	0.605	0.80	1.30	1.76	0.111	10.28%
11/1/2021	0.005	1.284	1.070	0.007	0.986	0.605	0.79	1.30	1.77	0.112	10.28%
11/2/2021	0.006	1.263	1.073	0.007	0.988	0.605	0.83	1.28	1.77	0.125	10.29%
11/3/2021	0.006	1.169	1.143	0.007	1.002	0.611	0.93	1.17	1.87	0.109	10.37%
11/4/2021	0.006	1.183	1.122	0.007	1.009	0.610	0.90	1.17	1.84	0.148	10.38%
11/5/2021	0.008	1.481	0.851	0.007	1.035	0.623	1.09	1.43	1.37	0.087	10.67%
11/8/2021	0.008	1.838	0.678	0.007	1.045	0.616	1.17	1.76	1.10	0.088	10.65%
11/9/2021	0.008	1.828	0.689	0.007	1.046	0.618	1.14	1.75	1.11	0.094	10.65%
11/10/2021	0.008	1.906	0.684	0.007	1.056	0.622	1.09	1.80	1.10	0.094	10.67%
11/11/2021	0.007	1.965	0.696	0.007	1.055	0.623	1.04	1.86	1.12	0.091	10.69%
11/12/2021	0.007	1.955	0.683	0.007	1.055	0.623	1.04	1.85	1.10	0.091	10.68%
11/15/2021	0.007	1.950	0.684	0.007	1.060	0.624	0.96	1.84	1.10	0.094	10.69%
11/16/2021	0.006	1.947	0.698	0.007	1.061	0.625	0.89	1.84	1.12	0.069	10.70%
11/17/2021	0.006	2.004	0.679	0.007	1.067	0.626	0.92	1.88	1.09	0.092	10.70%
11/18/2021	0.005	2.136	0.639	0.007	1.079	0.633	0.75	1.98	1.01	0.069	10.83%
11/19/2021	0.006	2.125	0.624	0.007	1.079	0.634	0.78	1.97	0.98	0.070	10.83%
11/22/2021	0.006	2.083	0.649	0.007	1.080	0.634	0.85	1.93	1.02	0.067	10.84%
11/23/2021	0.006	2.068	0.657	0.007	1.082	0.636	0.86	1.91	1.03	0.067	10.84%
11/24/2021	0.006	2.103	0.649	0.007	1.083	0.636	0.89	1.94	1.02	0.070	10.84%
11/26/2021	0.007	2.147	0.635	0.007	1.099	0.641	0.94	1.95	0.99	0.069	10.85%
11/29/2021	0.007	2.135	0.635	0.007	1.066	0.633	0.93	2.00	1.00	0.069	10.85%
11/30/2021	0.006	2.089	0.650	0.007	1.066	0.642	0.91	1.96	1.01	0.068	10.85%
12/1/2021	0.007	2.037	0.670	0.007	1.057	0.644	0.94	1.93	1.04	0.071	10.85%
12/2/2021	0.007	2.114	0.674	0.007	1.056	0.643	0.93	2.00	1.05	0.070	10.85%
12/3/2021	0.007	2.054	0.688	0.007	1.048	0.643	0.93	1.96	1.07	0.071	10.85%
12/6/2021	0.006	2.062	0.696	0.007	1.048	0.642	0.91	1.97	1.08	0.071	10.86%
12/7/2021	0.006	1.973	0.750	0.007	1.037	0.635	0.89	1.90	1.18	0.071	10.86%
12/8/2021	0.006	1.973	0.751	0.007	1.035	0.631	0.90	1.91	1.19	0.072	10.86%
12/9/2021	0.006	1.974	0.751	0.007	1.035	0.632	0.91	1.91	1.19	0.074	10.86%
12/10/2021	0.006	2.002	0.777	0.007	1.036	0.632	0.86	1.93	1.23	0.074	10.87%
12/13/2021	0.006	1.948	0.825	0.007	1.032	0.630	0.87	1.89	1.31	0.073	10.86%
12/14/2021	0.006	1.937	0.832	0.007	1.021	0.625	0.85	1.90	1.33	0.074	10.86%
12/15/2021	0.006	1.901	0.843	0.007	1.017	0.623	0.89	1.87	1.35	0.077	10.84%
12/16/2021	0.006	1.860	0.817	0.007	1.022	0.624	0.85	1.82	1.31	0.075	10.86%
12/17/2021	0.006	1.875	0.816	0.007	1.021	0.625	0.84	1.84	1.31	0.075	10.86%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/20/2021	0.006	1.908	0.784	0.007	1.010	0.615	0.81	1.89	1.28	0.082	10.86%
12/21/2021	0.005	2.011	0.778	0.007	1.009	0.617	0.74	1.99	1.26	0.083	10.89%
12/22/2021	0.006	2.149	0.751	0.007	1.000	0.617	0.82	2.15	1.22	0.079	10.91%
12/23/2021	0.006	2.132	0.760	0.007	0.996	0.616	0.83	2.14	1.23	0.079	10.91%
12/27/2021	0.006	2.128	0.759	0.007	0.995	0.616	0.83	2.14	1.23	0.080	10.91%
12/28/2021	0.006	2.172	0.733	0.007	0.986	0.611	0.84	2.20	1.20	0.081	10.91%
12/29/2021	0.006	2.212	0.710	0.007	0.988	0.614	0.84	2.24	1.16	0.080	10.91%
12/30/2021	0.006	2.216	0.692	0.007	0.988	0.614	0.84	2.24	1.13	0.079	10.91%
12/31/2021	0.006	2.211	0.695	0.007	0.988	0.614	0.85	2.24	1.13	0.079	10.91%
1/3/2022	0.006	2.224	0.686	0.007	0.989	0.614	0.87	2.25	1.12	0.081	10.91%
1/4/2022	0.006	2.240	0.690	0.007	0.987	0.614	0.90	2.27	1.12	0.084	10.89%
1/5/2022	0.006	2.217	0.685	0.007	0.988	0.609	0.89	2.24	1.13	0.083	10.89%
1/6/2022	0.007	2.135	0.622	0.007	0.986	0.607	0.93	2.16	1.03	0.079	10.90%
1/7/2022	0.007	2.150	0.637	0.007	0.987	0.609	0.94	2.18	1.05	0.080	10.90%
1/10/2022	0.007	2.152	0.639	0.007	0.989	0.611	0.95	2.18	1.05	0.076	10.93%
1/11/2022	0.007	2.154	0.636	0.007	0.989	0.609	0.95	2.18	1.04	0.076	10.93%
1/12/2022	0.007	2.158	0.636	0.007	0.988	0.609	0.96	2.19	1.04	0.077	10.92%
1/13/2022	0.005	2.118	0.670	0.007	0.967	0.595	0.77	2.19	1.13	0.082	10.72%
1/14/2022	0.006	2.039	0.768	0.007	0.966	0.599	0.85	2.11	1.28	0.083	10.69%
1/18/2022	0.006	2.063	0.757	0.007	0.969	0.598	0.82	2.13	1.27	0.087	10.69%
1/19/2022	0.005	2.064	0.713	0.007	0.962	0.593	0.71	2.14	1.20	0.084	10.64%
1/20/2022	0.005	2.134	0.692	0.007	0.964	0.593	0.76	2.21	1.17	0.089	10.62%
1/21/2022	0.005	2.181	0.688	0.007	0.963	0.594	0.72	2.27	1.16	0.087	10.63%
1/24/2022	0.005	2.185	0.670	0.007	0.955	0.595	0.69	2.29	1.13	0.089	10.62%
1/25/2022	0.004	2.250	0.592	0.007	0.950	0.594	0.61	2.37	1.00	0.087	10.57%
1/26/2022	0.004	2.157	0.691	0.007	0.940	0.590	0.53	2.30	1.17	0.091	10.47%
1/27/2022	0.003	2.272	0.710	0.007	0.946	0.589	0.47	2.40	1.21	0.095	10.45%
1/28/2022	0.003	2.332	0.702	0.007	0.946	0.587	0.51	2.46	1.20	0.097	10.44%
1/31/2022	0.003	2.449	0.626	0.007	0.957	0.589	0.42	2.56	1.06	0.100	10.42%
2/1/2022	0.003	2.357	0.641	0.007	0.956	0.588	0.37	2.47	1.09	0.098	10.40%
2/2/2022	-0.001	1.661	0.701	0.006	0.801	0.491	-0.14	2.07	1.43	0.125	8.69%
2/3/2022	-0.003	1.588	0.750	0.005	0.756	0.463	-0.47	2.10	1.62	0.141	8.23%
2/4/2022	-0.001	1.677	0.804	0.005	0.722	0.446	-0.17	2.32	1.80	0.162	7.93%
2/7/2022	0.001	1.667	0.945	0.005	0.686	0.426	0.20	2.43	2.22	0.187	7.55%
2/8/2022	0.001	1.680	0.935	0.005	0.684	0.424	0.18	2.46	2.21	0.149	7.53%
2/9/2022	0.001	1.680	0.929	0.005	0.682	0.423	0.20	2.46	2.19	0.150	7.53%
2/10/2022	0.001	1.676	0.927	0.005	0.679	0.422	0.20	2.47	2.20	0.145	7.51%
2/11/2022	0.002	1.592	0.896	0.005	0.682	0.424	0.33	2.33	2.11	0.134	7.56%
2/14/2022	0.002	1.595	0.900	0.005	0.676	0.423	0.38	2.36	2.13	0.136	7.55%
2/15/2022	0.002	1.590	0.911	0.005	0.674	0.421	0.36	2.36	2.16	0.132	7.54%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/16/2022	0.002	1.562	0.902	0.005	0.674	0.421	0.34	2.32	2.14	0.131	7.54%
2/17/2022	0.002	1.561	0.908	0.005	0.674	0.422	0.32	2.32	2.15	0.134	7.54%
2/18/2022	0.001	1.582	0.890	0.005	0.669	0.421	0.25	2.36	2.11	0.133	7.53%
2/22/2022	0.001	1.573	0.882	0.005	0.669	0.423	0.28	2.35	2.09	0.135	7.53%
2/23/2022	0.001	1.623	0.867	0.005	0.668	0.424	0.22	2.43	2.04	0.135	7.54%
2/24/2022	0.001	1.654	0.868	0.005	0.666	0.424	0.20	2.48	2.05	0.138	7.54%
2/25/2022	0.001	1.717	0.874	0.005	0.673	0.424	0.21	2.55	2.06	0.138	7.54%
2/28/2022	0.001	1.658	0.886	0.005	0.667	0.424	0.21	2.48	2.09	0.137	7.54%
3/1/2022	0.001	1.703	0.879	0.005	0.675	0.424	0.24	2.52	2.07	0.138	7.54%
3/2/2022	0.001	1.734	0.892	0.005	0.670	0.423	0.17	2.59	2.11	0.140	7.53%
3/3/2022	0.001	1.707	0.900	0.005	0.665	0.426	0.15	2.57	2.11	0.142	7.53%
3/4/2022	0.001	1.690	0.905	0.005	0.666	0.426	0.13	2.54	2.12	0.137	7.54%
3/7/2022	0.001	1.729	0.912	0.005	0.667	0.426	0.22	2.59	2.14	0.142	7.52%
3/8/2022	0.001	1.743	0.933	0.005	0.649	0.424	0.17	2.69	2.20	0.144	7.51%
3/9/2022	0.001	1.733	0.939	0.005	0.647	0.423	0.19	2.68	2.22	0.137	7.50%
3/10/2022	0.001	1.721	0.931	0.005	0.644	0.422	0.18	2.67	2.20	0.137	7.50%
3/11/2022	0.001	1.720	0.929	0.005	0.644	0.424	0.20	2.67	2.19	0.136	7.50%
3/14/2022	0.001	1.722	0.927	0.005	0.643	0.424	0.21	2.68	2.19	0.141	7.50%
3/15/2022	0.001	1.759	0.942	0.005	0.643	0.425	0.19	2.74	2.22	0.141	7.51%
3/16/2022	0.001	1.770	0.940	0.005	0.639	0.425	0.20	2.77	2.21	0.143	7.51%
3/17/2022	0.000	1.754	0.913	0.005	0.631	0.420	0.04	2.78	2.17	0.145	7.43%
3/18/2022	0.000	1.740	0.894	0.005	0.630	0.420	0.09	2.76	2.13	0.140	7.43%
3/21/2022	0.000	1.728	0.886	0.005	0.631	0.422	0.05	2.74	2.10	0.139	7.43%
3/22/2022	0.000	1.719	0.908	0.005	0.630	0.422	0.09	2.73	2.15	0.141	7.42%
3/23/2022	0.000	1.718	0.896	0.005	0.630	0.426	0.08	2.73	2.10	0.139	7.43%
3/24/2022	0.001	1.706	0.859	0.005	0.631	0.429	0.16	2.70	2.00	0.135	7.44%
3/25/2022	0.001	1.699	0.857	0.005	0.630	0.429	0.14	2.70	2.00	0.134	7.44%
3/28/2022	0.001	1.796	0.823	0.005	0.630	0.426	0.22	2.85	1.93	0.138	7.41%
3/29/2022	0.001	1.790	0.817	0.005	0.630	0.427	0.22	2.84	1.91	0.137	7.41%
3/30/2022	0.001	1.781	0.793	0.005	0.630	0.426	0.18	2.83	1.86	0.136	7.41%
3/31/2022	0.001	1.779	0.799	0.005	0.630	0.429	0.19	2.82	1.86	0.137	7.41%
4/1/2022	0.001	1.784	0.797	0.005	0.628	0.428	0.18	2.84	1.86	0.136	7.41%
4/4/2022	0.001	1.828	0.778	0.005	0.628	0.425	0.21	2.91	1.83	0.138	7.41%
4/5/2022	0.001	1.834	0.766	0.005	0.628	0.425	0.24	2.92	1.80	0.159	7.40%
4/6/2022	0.000	1.935	0.772	0.005	0.633	0.431	0.10	3.06	1.79	0.144	7.47%
4/7/2022	0.000	1.978	0.750	0.005	0.630	0.430	0.06	3.14	1.75	0.144	7.48%
4/8/2022	0.000	1.993	0.733	0.005	0.632	0.430	0.03	3.15	1.70	0.143	7.49%
4/11/2022	0.001	2.047	0.674	0.005	0.629	0.429	0.12	3.26	1.57	0.143	7.44%
4/12/2022	0.001	2.037	0.682	0.005	0.628	0.430	0.15	3.24	1.59	0.143	7.44%
4/13/2022	0.001	2.026	0.690	0.005	0.630	0.432	0.17	3.21	1.60	0.144	7.44%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
4/14/2022	0.001	2.038	0.689	0.005	0.630	0.431	0.19	3.23	1.60	0.145	7.43%
4/18/2022	0.001	2.040	0.689	0.005	0.629	0.430	0.21	3.24	1.60	0.146	7.43%
4/19/2022	0.001	2.028	0.700	0.005	0.627	0.426	0.20	3.23	1.64	0.154	7.43%
4/20/2022	0.000	1.856	0.748	0.005	0.632	0.430	0.10	2.94	1.74	0.141	7.50%
4/21/2022	0.000	1.865	0.721	0.005	0.633	0.432	-0.02	2.95	1.67	0.138	7.52%
4/22/2022	-0.001	1.916	0.722	0.005	0.633	0.432	-0.11	3.03	1.67	0.138	7.52%
4/25/2022	0.000	1.762	0.744	0.005	0.630	0.432	-0.08	2.80	1.72	0.133	7.53%
4/26/2022	0.000	1.767	0.745	0.005	0.631	0.434	-0.06	2.80	1.72	0.133	7.54%
4/27/2022	-0.001	1.761	0.752	0.005	0.631	0.434	-0.12	2.79	1.73	0.130	7.54%
4/28/2022	-0.001	1.741	0.771	0.005	0.630	0.434	-0.19	2.76	1.78	0.130	7.53%
4/29/2022	-0.001	1.669	0.807	0.005	0.620	0.432	-0.23	2.69	1.87	0.129	7.54%
5/2/2022	-0.001	1.552	0.830	0.005	0.611	0.432	-0.17	2.54	1.92	0.126	7.55%
5/3/2022	-0.001	1.564	0.816	0.005	0.609	0.431	-0.13	2.57	1.89	0.127	7.53%
5/4/2022	-0.001	1.567	0.812	0.005	0.610	0.434	-0.12	2.57	1.87	0.126	7.53%
5/5/2022	-0.001	1.487	0.832	0.005	0.603	0.435	-0.19	2.47	1.91	0.124	7.54%
5/6/2022	-0.001	1.409	0.813	0.005	0.599	0.436	-0.12	2.35	1.87	0.121	7.56%
5/9/2022	-0.001	1.419	0.796	0.005	0.596	0.428	-0.11	2.38	1.86	0.126	7.54%
5/10/2022	0.000	1.390	0.774	0.005	0.593	0.427	-0.06	2.34	1.81	0.125	7.54%
5/11/2022	0.000	1.405	0.764	0.005	0.596	0.428	-0.08	2.36	1.78	0.130	7.56%
5/12/2022	-0.001	1.394	0.816	0.005	0.604	0.428	-0.13	2.31	1.91	0.126	7.57%
5/13/2022	-0.001	1.403	0.807	0.005	0.603	0.423	-0.14	2.33	1.91	0.130	7.57%
5/16/2022	-0.001	1.407	0.808	0.005	0.601	0.423	-0.14	2.34	1.91	0.131	7.57%
5/17/2022	-0.001	1.381	0.824	0.005	0.601	0.423	-0.13	2.30	1.95	0.131	7.58%
5/18/2022	-0.001	1.428	0.812	0.005	0.600	0.422	-0.17	2.38	1.93	0.131	7.56%
5/19/2022	-0.001	1.335	0.835	0.005	0.590	0.422	-0.14	2.26	1.98	0.132	7.57%
5/20/2022	0.000	1.301	0.868	0.005	0.590	0.422	-0.08	2.21	2.06	0.130	7.58%
5/23/2022	0.000	1.286	0.884	0.005	0.590	0.422	-0.06	2.18	2.09	0.133	7.59%
5/24/2022	0.000	1.359	0.850	0.005	0.589	0.423	0.02	2.31	2.01	0.135	7.59%
5/25/2022	0.000	1.369	0.858	0.005	0.590	0.423	-0.03	2.32	2.03	0.135	7.60%
5/26/2022	0.000	1.385	0.848	0.005	0.588	0.423	-0.04	2.36	2.01	0.134	7.59%
5/27/2022	-0.001	1.316	0.869	0.005	0.583	0.422	-0.16	2.26	2.06	0.132	7.59%
5/31/2022	-0.001	1.306	0.870	0.005	0.581	0.422	-0.14	2.25	2.06	0.141	7.59%
6/1/2022	0.000	1.329	0.809	0.005	0.586	0.424	-0.07	2.27	1.91	0.134	7.65%
6/2/2022	-0.001	1.342	0.814	0.005	0.588	0.425	-0.21	2.28	1.92	0.127	7.67%
6/3/2022	-0.001	1.343	0.814	0.005	0.582	0.423	-0.24	2.31	1.92	0.129	7.67%
6/6/2022	-0.001	1.266	0.855	0.005	0.578	0.422	-0.19	2.19	2.03	0.126	7.68%
6/7/2022	-0.001	1.268	0.849	0.005	0.580	0.427	-0.23	2.18	1.99	0.125	7.68%
6/8/2022	-0.001	1.267	0.848	0.005	0.580	0.425	-0.25	2.18	1.99	0.125	7.68%
6/9/2022	-0.001	1.249	0.867	0.005	0.579	0.425	-0.22	2.16	2.04	0.128	7.67%
6/10/2022	-0.001	1.247	0.883	0.005	0.579	0.425	-0.21	2.15	2.08	0.130	7.67%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/13/2022	-0.001	1.100	0.920	0.005	0.575	0.424	-0.24	1.91	2.17	0.145	7.65%
6/14/2022	-0.002	1.235	0.922	0.005	0.570	0.426	-0.32	2.17	2.16	0.143	7.67%
6/15/2022	-0.001	1.221	0.928	0.005	0.571	0.427	-0.24	2.14	2.17	0.143	7.68%
6/16/2022	-0.001	1.233	0.951	0.005	0.568	0.425	-0.29	2.17	2.24	0.144	7.65%
6/17/2022	-0.001	1.174	0.973	0.005	0.561	0.425	-0.24	2.09	2.29	0.144	7.65%
6/21/2022	-0.001	1.202	0.951	0.005	0.558	0.417	-0.27	2.15	2.28	0.145	7.65%
6/22/2022	-0.002	1.114	0.958	0.005	0.557	0.416	-0.43	2.00	2.30	0.145	7.64%
6/23/2022	-0.002	1.067	1.002	0.005	0.556	0.415	-0.35	1.92	2.42	0.136	7.64%
6/24/2022	-0.002	1.060	1.014	0.005	0.554	0.409	-0.34	1.91	2.48	0.136	7.65%
6/27/2022	-0.002	1.005	1.023	0.005	0.549	0.409	-0.41	1.83	2.50	0.133	7.65%
6/28/2022	-0.002	1.002	1.030	0.005	0.548	0.409	-0.36	1.83	2.52	0.135	7.65%
6/29/2022	-0.002	1.002	1.026	0.005	0.546	0.408	-0.43	1.83	2.51	0.135	7.63%
6/30/2022	-0.002	0.999	1.028	0.005	0.546	0.407	-0.40	1.83	2.52	0.136	7.63%
7/1/2022	-0.002	1.011	1.024	0.005	0.546	0.408	-0.45	1.85	2.51	0.137	7.63%
7/5/2022	-0.003	1.016	0.988	0.005	0.547	0.408	-0.56	1.86	2.42	0.131	7.65%
7/6/2022	-0.003	1.023	0.977	0.005	0.547	0.406	-0.59	1.87	2.40	0.134	7.65%
7/7/2022	-0.003	1.013	0.988	0.005	0.548	0.408	-0.70	1.85	2.42	0.131	7.66%
7/8/2022	-0.004	0.985	1.008	0.005	0.548	0.408	-0.76	1.80	2.47	0.132	7.65%
7/11/2022	-0.004	1.048	0.965	0.005	0.548	0.407	-0.86	1.91	2.37	0.134	7.63%
7/12/2022	-0.004	1.104	0.954	0.005	0.546	0.405	-0.77	2.02	2.36	0.138	7.58%
7/13/2022	-0.004	1.089	0.964	0.005	0.545	0.405	-0.80	2.00	2.38	0.138	7.58%
7/14/2022	-0.004	1.086	0.975	0.005	0.544	0.404	-0.84	2.00	2.41	0.140	7.57%
7/15/2022	-0.004	1.101	0.955	0.005	0.544	0.404	-0.78	2.03	2.36	0.139	7.56%
7/18/2022	-0.003	1.068	0.972	0.005	0.538	0.400	-0.67	1.99	2.43	0.141	7.50%
7/19/2022	-0.003	1.052	0.981	0.005	0.540	0.400	-0.63	1.95	2.45	0.142	7.50%
7/20/2022	-0.003	1.080	0.954	0.005	0.542	0.403	-0.68	1.99	2.37	0.142	7.49%
7/21/2022	-0.004	1.041	0.961	0.005	0.542	0.402	-0.75	1.92	2.39	0.140	7.48%
7/22/2022	-0.005	0.950	0.987	0.005	0.530	0.393	-1.00	1.79	2.51	0.141	7.32%
7/25/2022	-0.005	0.947	0.985	0.005	0.528	0.392	-1.06	1.79	2.51	0.144	7.30%
7/26/2022	-0.005	0.955	0.981	0.005	0.529	0.392	-1.09	1.80	2.50	0.142	7.31%
7/27/2022	-0.005	0.947	0.984	0.005	0.530	0.394	-1.07	1.79	2.50	0.151	7.31%
7/28/2022	-0.006	0.783	1.057	0.005	0.529	0.396	-1.27	1.48	2.67	0.139	7.37%
7/29/2022	-0.006	0.724	1.083	0.005	0.530	0.400	-1.38	1.37	2.71	0.131	7.39%
8/1/2022	-0.007	0.703	1.096	0.005	0.525	0.397	-1.40	1.34	2.76	0.100	7.38%
8/2/2022	-0.005	0.645	1.101	0.004	0.499	0.377	-1.04	1.29	2.92	0.105	7.02%
8/3/2022	-0.005	0.620	1.121	0.004	0.495	0.374	-1.10	1.25	3.00	0.103	6.98%
8/4/2022	-0.005	0.657	1.043	0.004	0.496	0.373	-1.22	1.32	2.80	0.099	7.00%
8/5/2022	-0.006	0.741	0.960	0.004	0.497	0.372	-1.35	1.49	2.58	0.092	7.02%
8/8/2022	-0.006	0.755	0.922	0.004	0.493	0.370	-1.46	1.53	2.50	0.096	6.98%
8/9/2022	-0.006	0.750	0.931	0.004	0.496	0.371	-1.35	1.51	2.51	0.091	7.00%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/10/2022	-0.006	0.809	0.861	0.004	0.498	0.375	-1.37	1.62	2.30	0.086	6.99%
8/11/2022	-0.006	0.768	0.885	0.004	0.498	0.376	-1.44	1.54	2.36	0.086	6.99%
8/12/2022	-0.006	0.742	0.911	0.004	0.501	0.380	-1.45	1.48	2.40	0.088	6.99%
8/15/2022	-0.007	0.765	0.889	0.004	0.498	0.379	-1.53	1.54	2.34	0.087	6.96%
8/16/2022	-0.007	0.776	0.874	0.004	0.498	0.378	-1.59	1.56	2.31	0.086	6.96%
8/17/2022	-0.007	0.793	0.857	0.004	0.497	0.378	-1.55	1.59	2.27	0.129	6.96%
8/18/2022	-0.005	0.708	0.860	0.005	0.516	0.392	-1.16	1.37	2.20	0.074	7.15%
8/19/2022	-0.005	0.731	0.848	0.005	0.515	0.391	-1.16	1.42	2.17	0.074	7.15%
8/22/2022	-0.005	0.744	0.836	0.005	0.515	0.393	-1.15	1.45	2.12	0.074	7.15%
8/23/2022	-0.005	0.750	0.832	0.005	0.513	0.394	-1.17	1.46	2.11	0.075	7.15%
8/24/2022	-0.006	0.778	0.782	0.005	0.513	0.396	-1.22	1.52	1.98	0.076	7.14%
8/25/2022	-0.005	0.755	0.812	0.005	0.514	0.396	-1.15	1.47	2.05	0.071	7.16%
8/26/2022	-0.004	0.732	0.854	0.004	0.483	0.374	-0.89	1.51	2.29	0.089	6.76%
8/29/2022	-0.003	0.624	0.846	0.004	0.482	0.374	-0.66	1.29	2.26	0.086	6.76%
8/30/2022	-0.002	0.730	0.806	0.004	0.477	0.370	-0.58	1.53	2.18	0.082	6.68%
8/31/2022	-0.002	0.742	0.795	0.004	0.475	0.368	-0.48	1.56	2.16	0.082	6.66%
9/1/2022	-0.002	0.758	0.779	0.004	0.473	0.367	-0.55	1.60	2.12	0.082	6.64%
9/2/2022	-0.002	0.759	0.784	0.004	0.470	0.364	-0.49	1.61	2.15	0.084	6.62%
9/6/2022	-0.002	0.762	0.779	0.004	0.470	0.364	-0.53	1.62	2.14	0.094	6.62%
9/7/2022	-0.001	0.797	0.729	0.004	0.472	0.365	-0.34	1.69	2.00	0.081	6.66%
9/8/2022	-0.001	0.792	0.736	0.004	0.472	0.364	-0.29	1.68	2.02	0.081	6.65%
9/9/2022	-0.001	0.803	0.721	0.004	0.471	0.361	-0.28	1.71	2.00	0.089	6.65%
9/12/2022	-0.001	0.867	0.692	0.004	0.470	0.362	-0.27	1.84	1.91	0.083	6.66%
9/13/2022	-0.001	0.874	0.690	0.004	0.469	0.361	-0.30	1.86	1.91	0.087	6.66%
9/14/2022	-0.001	0.905	0.663	0.004	0.466	0.361	-0.24	1.94	1.84	0.089	6.64%
9/15/2022	0.000	0.876	0.683	0.004	0.464	0.360	-0.10	1.89	1.90	0.088	6.61%
9/16/2022	-0.001	0.889	0.670	0.004	0.462	0.359	-0.16	1.92	1.87	0.087	6.61%
9/19/2022	-0.001	0.889	0.670	0.004	0.462	0.359	-0.16	1.92	1.87	0.087	6.61%
9/20/2022	-0.001	0.923	0.644	0.004	0.460	0.357	-0.28	2.01	1.80	0.134	6.59%
9/21/2022	0.000	0.823	0.688	0.004	0.475	0.369	-0.04	1.73	1.87	0.077	6.80%
9/22/2022	-0.001	0.845	0.665	0.004	0.474	0.368	-0.13	1.79	1.81	0.142	6.78%
9/23/2022	0.001	0.719	0.722	0.005	0.495	0.385	0.18	1.45	1.88	0.093	7.08%
9/26/2022	0.000	0.697	0.710	0.004	0.493	0.383	0.06	1.41	1.86	0.092	7.05%
9/27/2022	0.000	0.666	0.717	0.005	0.496	0.386	0.11	1.34	1.86	0.085	7.08%
9/28/2022	0.000	0.646	0.738	0.004	0.493	0.383	0.03	1.31	1.93	0.087	7.05%
9/29/2022	0.000	0.658	0.674	0.004	0.495	0.382	-0.05	1.33	1.76	0.080	7.07%
9/30/2022	0.000	0.658	0.670	0.004	0.493	0.382	-0.01	1.33	1.75	0.080	7.07%
10/3/2022	0.000	0.671	0.662	0.004	0.493	0.382	-0.03	1.36	1.73	0.080	7.07%
10/4/2022	0.000	0.667	0.651	0.004	0.495	0.386	-0.04	1.35	1.68	0.079	7.07%
10/5/2022	0.000	0.640	0.635	0.004	0.492	0.386	-0.01	1.30	1.65	0.076	7.06%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/6/2022	0.000	0.627	0.642	0.004	0.492	0.386	-0.06	1.27	1.66	0.077	7.05%
10/7/2022	0.000	0.652	0.613	0.004	0.492	0.386	0.05	1.33	1.59	0.077	7.04%
10/10/2022	0.000	0.666	0.612	0.004	0.491	0.386	0.03	1.36	1.58	0.083	7.04%
10/11/2022	0.000	0.685	0.605	0.004	0.492	0.387	-0.03	1.39	1.56	0.077	7.06%
10/12/2022	0.000	0.691	0.600	0.004	0.491	0.387	-0.04	1.41	1.55	0.077	7.06%
10/13/2022	0.000	0.690	0.600	0.004	0.491	0.386	-0.04	1.41	1.55	0.078	7.06%
10/14/2022	0.000	0.691	0.599	0.004	0.489	0.386	-0.08	1.41	1.55	0.078	7.06%
10/17/2022	0.000	0.703	0.599	0.004	0.486	0.385	-0.03	1.44	1.56	0.079	7.05%
10/18/2022	0.000	0.701	0.582	0.004	0.485	0.385	-0.01	1.45	1.51	0.078	7.04%
10/19/2022	0.000	0.673	0.600	0.004	0.485	0.387	-0.06	1.39	1.55	0.079	7.05%
10/20/2022	0.000	0.662	0.626	0.004	0.483	0.382	-0.01	1.37	1.64	0.080	7.03%
10/21/2022	0.000	0.661	0.625	0.004	0.483	0.383	0.04	1.37	1.63	0.080	7.04%
10/24/2022	0.000	0.661	0.624	0.004	0.482	0.383	0.04	1.37	1.63	0.081	7.04%
10/25/2022	0.000	0.655	0.622	0.004	0.483	0.383	0.01	1.36	1.62	0.080	7.04%
10/26/2022	0.000	0.652	0.616	0.004	0.482	0.383	-0.03	1.35	1.61	0.080	7.04%
10/27/2022	0.000	0.635	0.632	0.004	0.480	0.381	0.01	1.32	1.66	0.079	7.04%
10/28/2022	0.000	0.640	0.622	0.004	0.481	0.382	0.04	1.33	1.63	0.077	7.05%
10/31/2022	0.000	0.637	0.636	0.004	0.480	0.380	0.08	1.33	1.67	0.077	7.05%
11/1/2022	0.000	0.641	0.633	0.004	0.480	0.380	0.10	1.33	1.67	0.077	7.04%
11/2/2022	0.000	0.656	0.613	0.004	0.480	0.380	0.04	1.37	1.62	0.076	7.04%
11/3/2022	-0.001	0.662	0.582	0.004	0.466	0.371	-0.15	1.42	1.57	0.079	6.89%
11/4/2022	0.000	0.657	0.593	0.004	0.467	0.372	-0.11	1.41	1.59	0.077	6.90%
11/7/2022	-0.002	0.408	0.829	0.004	0.434	0.347	-0.50	0.94	2.39	0.100	6.40%
11/8/2022	-0.003	0.304	0.920	0.004	0.436	0.350	-0.65	0.70	2.63	0.102	6.38%
11/9/2022	-0.003	0.305	0.922	0.004	0.436	0.350	-0.62	0.70	2.63	0.102	6.38%
11/10/2022	-0.002	0.321	0.895	0.004	0.432	0.348	-0.49	0.74	2.57	0.102	6.33%
11/11/2022	-0.002	0.266	0.900	0.004	0.420	0.345	-0.43	0.63	2.61	0.105	6.30%
11/14/2022	-0.002	0.289	0.889	0.004	0.420	0.345	-0.41	0.69	2.57	0.107	6.31%
11/15/2022	-0.001	0.263	0.909	0.004	0.420	0.345	-0.26	0.63	2.63	0.100	6.32%
11/16/2022	-0.001	0.269	0.898	0.004	0.417	0.343	-0.17	0.65	2.62	0.116	6.28%
11/17/2022	-0.001	0.286	0.901	0.004	0.420	0.346	-0.31	0.68	2.60	0.101	6.33%
11/18/2022	0.000	0.244	0.925	0.004	0.405	0.333	-0.05	0.60	2.78	0.111	6.10%
11/21/2022	0.000	0.241	0.929	0.004	0.405	0.334	-0.08	0.59	2.78	0.108	6.11%
11/22/2022	-0.001	0.264	0.909	0.004	0.404	0.333	-0.20	0.65	2.73	0.108	6.08%
11/23/2022	-0.001	0.264	0.909	0.004	0.405	0.333	-0.20	0.65	2.73	0.105	6.09%
11/25/2022	-0.001	0.275	0.901	0.004	0.404	0.333	-0.17	0.68	2.71	0.105	6.10%
11/28/2022	-0.001	0.267	0.904	0.004	0.403	0.332	-0.23	0.66	2.73	0.105	6.07%
11/29/2022	-0.001	0.247	0.920	0.004	0.407	0.334	-0.22	0.61	2.75	0.105	6.07%
11/30/2022	-0.001	0.258	0.914	0.004	0.407	0.334	-0.17	0.63	2.73	0.106	6.07%
12/1/2022	-0.001	0.243	0.913	0.004	0.408	0.335	-0.19	0.60	2.73	0.105	6.07%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/2/2022	-0.001	0.244	0.895	0.004	0.407	0.334	-0.15	0.60	2.68	0.104	6.06%
12/5/2022	0.000	0.239	0.905	0.004	0.409	0.334	-0.09	0.58	2.71	0.107	6.06%
12/6/2022	0.000	0.255	0.897	0.004	0.409	0.335	-0.10	0.62	2.68	0.103	6.07%
12/7/2022	0.000	0.284	0.870	0.004	0.413	0.339	-0.05	0.69	2.57	0.111	6.06%
12/8/2022	0.000	0.257	0.881	0.004	0.414	0.341	0.00	0.62	2.58	0.101	6.09%
12/9/2022	0.000	0.263	0.876	0.004	0.414	0.342	0.00	0.64	2.56	0.099	6.09%
12/12/2022	0.000	0.283	0.840	0.004	0.413	0.341	0.09	0.68	2.47	0.101	6.08%
12/13/2022	0.001	0.322	0.817	0.004	0.415	0.343	0.19	0.78	2.38	0.099	6.08%
12/14/2022	0.001	0.327	0.819	0.004	0.419	0.346	0.21	0.78	2.37	0.098	6.09%
12/15/2022	0.001	0.339	0.812	0.004	0.418	0.345	0.17	0.81	2.36	0.109	6.08%
12/16/2022	0.001	0.390	0.812	0.004	0.418	0.346	0.14	0.93	2.35	0.104	6.10%
12/19/2022	0.001	0.389	0.810	0.004	0.417	0.346	0.16	0.93	2.34	0.103	6.10%
12/20/2022	0.001	0.355	0.843	0.004	0.422	0.351	0.19	0.84	2.40	0.104	6.09%
12/21/2022	0.001	0.317	0.849	0.004	0.417	0.346	0.32	0.76	2.46	0.105	6.02%
12/22/2022	0.000	0.190	0.914	0.004	0.414	0.342	0.11	0.46	2.67	0.113	5.94%
12/23/2022	0.000	0.253	0.872	0.004	0.416	0.344	0.00	0.61	2.53	0.104	5.98%
12/27/2022	0.000	0.253	0.872	0.004	0.417	0.345	0.00	0.61	2.53	0.115	5.99%
12/28/2022	-0.001	0.121	1.000	0.004	0.423	0.349	-0.21	0.29	2.87	0.105	6.02%
12/29/2022	-0.001	0.138	0.986	0.004	0.421	0.348	-0.18	0.33	2.83	0.106	6.01%
12/30/2022	0.000	0.139	0.992	0.004	0.421	0.348	-0.12	0.33	2.85	0.106	6.01%
1/3/2023	0.000	0.139	0.991	0.004	0.421	0.348	-0.12	0.33	2.85	0.109	6.01%
1/4/2023	-0.001	0.132	1.002	0.004	0.421	0.348	-0.18	0.31	2.87	0.111	6.02%
1/5/2023	-0.001	0.132	1.003	0.004	0.421	0.348	-0.20	0.31	2.88	0.107	6.01%
1/6/2023	-0.001	0.100	1.034	0.004	0.421	0.350	-0.22	0.24	2.95	0.108	6.01%
1/9/2023	-0.001	0.057	1.094	0.004	0.419	0.351	-0.35	0.14	3.12	0.112	5.99%
1/10/2023	-0.001	0.089	1.062	0.004	0.416	0.347	-0.30	0.21	3.06	0.117	6.00%
1/11/2023	-0.001	0.076	1.085	0.004	0.416	0.347	-0.23	0.18	3.13	0.131	6.00%
1/12/2023	0.000	0.136	1.051	0.004	0.419	0.350	-0.08	0.32	3.00	0.116	6.05%
1/13/2023	-0.001	0.136	1.041	0.004	0.420	0.350	-0.15	0.32	2.97	0.113	6.06%
1/17/2023	-0.001	0.142	1.035	0.004	0.421	0.352	-0.15	0.34	2.94	0.113	6.06%
1/18/2023	0.000	0.144	1.024	0.004	0.421	0.353	-0.10	0.34	2.90	0.111	6.05%
1/19/2023	0.000	0.142	1.027	0.004	0.421	0.353	-0.09	0.34	2.91	0.112	6.05%
1/20/2023	0.000	0.160	0.992	0.004	0.421	0.355	-0.06	0.38	2.79	0.109	6.05%
1/23/2023	0.000	0.184	0.980	0.004	0.419	0.355	-0.01	0.44	2.76	0.109	6.05%
1/24/2023	0.000	0.188	0.968	0.004	0.418	0.354	0.12	0.45	2.74	0.146	6.03%
1/25/2023	0.001	0.181	0.969	0.004	0.419	0.354	0.14	0.43	2.73	0.145	6.04%
1/26/2023	0.000	0.183	0.962	0.004	0.419	0.355	0.00	0.44	2.71	0.141	6.05%
1/27/2023	0.000	0.193	0.962	0.004	0.418	0.354	-0.03	0.46	2.72	0.143	6.04%
1/30/2023	0.000	0.201	0.955	0.004	0.418	0.354	0.02	0.48	2.70	0.144	6.05%
1/31/2023	0.000	0.210	0.952	0.004	0.419	0.355	0.00	0.50	2.68	0.142	6.05%



## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/1/2023	0.000	0.214	0.950	0.004	0.418	0.356	0.00	0.51	2.67	0.141	6.05%
2/2/2023	0.000	0.223	0.924	0.004	0.416	0.355	-0.02	0.54	2.60	0.144	6.04%
2/3/2023	0.000	0.282	0.879	0.004	0.416	0.356	0.05	0.68	2.47	0.136	6.07%
2/6/2023	0.000	0.285	0.878	0.004	0.417	0.357	0.03	0.68	2.46	0.137	6.07%
2/7/2023	0.000	0.296	0.877	0.004	0.418	0.358	-0.02	0.71	2.45	0.136	6.07%
2/8/2023	0.000	0.285	0.882	0.004	0.417	0.357	-0.07	0.68	2.47	0.136	6.06%
2/9/2023	0.000	0.280	0.884	0.004	0.417	0.356	-0.03	0.67	2.48	0.137	6.06%
2/10/2023	0.000	0.289	0.879	0.004	0.418	0.357	-0.05	0.69	2.46	0.136	6.07%
2/13/2023	0.000	0.289	0.872	0.004	0.418	0.357	-0.09	0.69	2.44	0.136	6.07%
2/14/2023	-0.001	0.275	0.911	0.004	0.415	0.356	-0.28	0.66	2.56	0.140	6.03%
2/15/2023	-0.001	0.265	0.916	0.004	0.416	0.356	-0.30	0.64	2.57	0.139	6.03%
2/16/2023	-0.001	0.280	0.898	0.004	0.417	0.357	-0.25	0.67	2.52	0.138	6.03%
2/17/2023	-0.001	0.278	0.902	0.004	0.417	0.358	-0.21	0.67	2.52	0.138	6.03%
2/21/2023	-0.001	0.270	0.909	0.004	0.416	0.356	-0.19	0.65	2.55	0.141	6.03%
2/22/2023	-0.001	0.272	0.908	0.004	0.416	0.357	-0.19	0.65	2.55	0.138	6.03%
2/23/2023	-0.001	0.272	0.910	0.004	0.416	0.357	-0.21	0.65	2.55	0.138	6.03%
2/24/2023	0.000	0.250	0.919	0.004	0.414	0.355	-0.11	0.60	2.59	0.139	6.01%
2/27/2023	0.000	0.240	0.912	0.004	0.413	0.354	-0.06	0.58	2.58	0.137	6.00%
2/28/2023	-0.001	0.234	0.898	0.004	0.413	0.353	-0.14	0.57	2.54	0.134	5.99%
3/1/2023	-0.001	0.238	0.896	0.004	0.414	0.353	-0.14	0.58	2.53	0.135	5.99%
3/2/2023	0.000	0.233	0.900	0.004	0.414	0.353	-0.12	0.56	2.55	0.135	5.99%
3/3/2023	0.000	0.217	0.907	0.004	0.414	0.353	-0.07	0.52	2.57	0.136	5.99%
3/6/2023	0.000	0.223	0.908	0.004	0.415	0.353	-0.04	0.54	2.57	0.135	5.99%
3/7/2023	0.000	0.235	0.884	0.004	0.414	0.352	0.04	0.57	2.51	0.135	5.97%
3/8/2023	0.000	0.243	0.886	0.004	0.413	0.353	-0.01	0.59	2.51	0.135	5.97%
3/9/2023	0.000	0.183	0.918	0.004	0.417	0.353	0.04	0.44	2.60	0.134	5.96%
3/10/2023	0.000	0.182	0.912	0.004	0.417	0.353	0.05	0.44	2.58	0.133	5.96%
3/13/2023	0.000	0.176	0.907	0.004	0.418	0.354	0.03	0.42	2.56	0.128	5.97%
3/14/2023	0.000	0.169	0.916	0.004	0.414	0.349	0.01	0.41	2.62	0.129	5.97%
3/15/2023	0.000	0.168	0.912	0.004	0.413	0.349	0.04	0.41	2.61	0.128	5.97%
3/16/2023	0.001	0.153	0.908	0.004	0.411	0.347	0.14	0.37	2.61	0.129	5.94%
3/17/2023	0.000	0.147	0.906	0.004	0.410	0.347	0.12	0.36	2.61	0.127	5.94%
3/20/2023	0.000	0.145	0.894	0.004	0.411	0.348	0.09	0.35	2.57	0.121	5.95%
3/21/2023	0.000	0.144	0.883	0.004	0.411	0.349	0.04	0.35	2.53	0.119	5.95%
3/22/2023	0.000	0.133	0.894	0.004	0.409	0.348	0.04	0.33	2.57	0.124	5.95%
3/23/2023	0.000	0.145	0.902	0.004	0.410	0.349	-0.02	0.35	2.58	0.120	5.96%
3/24/2023	0.000	0.147	0.899	0.004	0.410	0.349	-0.02	0.36	2.58	0.120	5.96%
3/27/2023	0.000	0.141	0.917	0.004	0.409	0.349	-0.08	0.35	2.63	0.122	5.95%
3/28/2023	0.000	0.140	0.917	0.004	0.409	0.349	-0.09	0.34	2.63	0.122	5.95%
3/29/2023	0.000	0.138	0.919	0.004	0.411	0.351	-0.12	0.33	2.62	0.121	5.95%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/30/2023	0.000	0.140	0.919	0.004	0.411	0.351	-0.10	0.34	2.62	0.122	5.95%
3/31/2023	0.000	0.144	0.925	0.004	0.410	0.351	-0.06	0.35	2.63	0.122	5.95%
4/3/2023	0.000	0.142	0.922	0.004	0.410	0.351	-0.05	0.35	2.62	0.122	5.95%
4/4/2023	0.000	0.125	0.931	0.004	0.411	0.352	-0.03	0.30	2.65	0.122	5.95%
4/5/2023	0.000	0.121	0.936	0.004	0.412	0.354	-0.02	0.29	2.65	0.122	5.95%
4/6/2023	0.000	0.126	0.932	0.004	0.411	0.353	-0.03	0.31	2.64	0.122	5.95%
4/10/2023	0.001	0.095	0.907	0.004	0.402	0.346	0.17	0.24	2.63	0.124	5.82%
4/11/2023	0.001	0.039	0.950	0.004	0.403	0.345	0.20	0.10	2.75	0.124	5.81%
4/12/2023	0.001	0.033	0.960	0.004	0.402	0.345	0.27	0.08	2.78	0.126	5.80%
4/13/2023	0.001	0.034	0.959	0.004	0.402	0.345	0.29	0.08	2.78	0.126	5.80%
4/14/2023	0.001	0.033	0.956	0.004	0.402	0.345	0.31	0.08	2.77	0.125	5.80%
4/17/2023	0.001	0.033	0.957	0.004	0.402	0.345	0.30	0.08	2.78	0.128	5.80%
4/18/2023	0.001	0.030	0.962	0.004	0.402	0.346	0.34	0.07	2.78	0.125	5.80%
4/19/2023	0.001	0.026	0.960	0.004	0.402	0.346	0.36	0.06	2.78	0.125	5.80%
4/20/2023	0.001	0.039	0.946	0.004	0.405	0.350	0.35	0.10	2.70	0.124	5.80%
4/21/2023	0.002	0.113	0.915	0.004	0.402	0.347	0.48	0.28	2.64	0.129	5.74%
4/24/2023	0.002	0.103	0.924	0.004	0.399	0.344	0.59	0.26	2.69	0.133	5.70%
4/25/2023	0.002	0.095	0.905	0.004	0.397	0.343	0.65	0.24	2.64	0.132	5.68%
4/26/2023	0.002	0.135	0.901	0.004	0.398	0.343	0.56	0.34	2.63	0.133	5.68%
4/27/2023	0.002	0.144	0.883	0.004	0.397	0.342	0.50	0.36	2.59	0.133	5.67%
4/28/2023	0.002	0.172	0.867	0.004	0.394	0.340	0.54	0.44	2.55	0.133	5.66%
5/1/2023	0.002	0.182	0.861	0.004	0.394	0.340	0.60	0.46	2.53	0.132	5.66%
5/2/2023	0.002	0.195	0.850	0.004	0.400	0.343	0.60	0.49	2.48	0.135	5.66%
5/3/2023	0.002	0.215	0.845	0.004	0.404	0.344	0.57	0.53	2.45	0.132	5.67%
5/4/2023	0.002	0.213	0.851	0.004	0.403	0.344	0.60	0.53	2.48	0.132	5.67%
5/5/2023	0.002	0.210	0.852	0.004	0.403	0.344	0.60	0.52	2.48	0.132	5.67%
5/8/2023	0.002	0.226	0.845	0.004	0.405	0.344	0.61	0.56	2.46	0.133	5.66%
5/9/2023	0.002	0.249	0.842	0.004	0.405	0.344	0.62	0.61	2.45	0.152	5.67%
5/10/2023	0.002	0.244	0.849	0.004	0.409	0.351	0.60	0.60	2.42	0.147	5.68%
5/11/2023	0.002	0.243	0.839	0.004	0.409	0.354	0.63	0.59	2.37	0.145	5.68%
5/12/2023	0.002	0.248	0.830	0.004	0.409	0.353	0.68	0.61	2.35	0.148	5.67%
5/15/2023	0.003	0.284	0.747	0.004	0.407	0.355	0.76	0.70	2.10	0.141	5.64%
5/16/2023	0.003	0.280	0.750	0.004	0.410	0.360	0.75	0.68	2.08	0.143	5.64%
5/17/2023	0.002	0.252	0.751	0.004	0.409	0.357	0.66	0.61	2.10	0.138	5.63%
5/18/2023	0.002	0.281	0.725	0.004	0.407	0.356	0.57	0.69	2.03	0.139	5.61%
5/19/2023	0.002	0.262	0.713	0.004	0.405	0.355	0.48	0.65	2.00	0.135	5.60%
5/22/2023	0.002	0.283	0.702	0.004	0.409	0.355	0.44	0.69	1.98	0.136	5.61%
5/23/2023	0.001	0.315	0.671	0.004	0.409	0.355	0.41	0.77	1.89	0.134	5.59%
5/24/2023	0.001	0.324	0.660	0.004	0.408	0.355	0.37	0.79	1.86	0.134	5.59%
5/25/2023	0.001	0.279	0.681	0.004	0.408	0.354	0.30	0.68	1.92	0.135	5.57%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/26/2023	0.001	0.253	0.686	0.004	0.403	0.349	0.36	0.63	1.97	0.134	5.55%
5/30/2023	0.001	0.211	0.709	0.004	0.402	0.348	0.26	0.53	2.04	0.134	5.55%
5/31/2023	0.001	0.244	0.696	0.004	0.404	0.348	0.28	0.60	2.00	0.134	5.54%
6/1/2023	0.001	0.243	0.688	0.004	0.404	0.348	0.25	0.60	1.98	0.133	5.54%
6/2/2023	0.000	0.178	0.792	0.004	0.397	0.344	0.05	0.45	2.30	0.143	5.46%
6/5/2023	0.001	0.179	0.770	0.003	0.393	0.341	0.21	0.46	2.26	0.144	5.41%
6/6/2023	0.001	0.171	0.774	0.003	0.397	0.342	0.17	0.43	2.26	0.144	5.41%
6/7/2023	0.000	0.231	0.730	0.003	0.399	0.343	0.13	0.58	2.13	0.145	5.40%
6/8/2023	0.001	0.252	0.706	0.003	0.401	0.346	0.21	0.63	2.04	0.143	5.40%
6/9/2023	0.001	0.257	0.700	0.003	0.402	0.349	0.22	0.64	2.01	0.142	5.40%
6/12/2023	0.001	0.238	0.714	0.003	0.403	0.349	0.24	0.59	2.04	0.143	5.40%
6/13/2023	0.001	0.242	0.678	0.003	0.403	0.351	0.31	0.60	1.93	0.141	5.39%
6/14/2023	0.001	0.283	0.706	0.003	0.402	0.350	0.23	0.70	2.02	0.145	5.36%
6/15/2023	0.002	0.133	0.663	0.003	0.395	0.342	0.49	0.34	1.94	0.139	5.25%
6/16/2023	0.001	0.150	0.646	0.003	0.394	0.341	0.38	0.38	1.90	0.139	5.23%
6/20/2023	0.001	0.151	0.617	0.003	0.393	0.340	0.28	0.38	1.81	0.137	5.21%
6/21/2023	0.001	0.144	0.618	0.003	0.398	0.341	0.30	0.36	1.81	0.137	5.21%
6/22/2023	0.001	0.146	0.612	0.003	0.403	0.350	0.32	0.36	1.75	0.135	5.21%
6/23/2023	0.001	0.168	0.619	0.003	0.403	0.350	0.38	0.42	1.77	0.138	5.20%
6/26/2023	0.001	0.231	0.558	0.003	0.402	0.349	0.26	0.57	1.60	0.141	5.17%
6/27/2023	0.001	0.251	0.529	0.003	0.405	0.356	0.16	0.62	1.49	0.136	5.18%
6/28/2023	0.001	0.293	0.506	0.003	0.405	0.353	0.20	0.72	1.44	0.136	5.17%
6/29/2023	0.001	0.296	0.503	0.003	0.405	0.353	0.18	0.73	1.43	0.136	5.17%
6/30/2023	0.001	0.291	0.493	0.003	0.404	0.352	0.21	0.72	1.40	0.137	5.17%
7/3/2023	0.001	0.302	0.489	0.003	0.404	0.353	0.24	0.75	1.38	0.136	5.17%
7/5/2023	0.001	0.297	0.480	0.003	0.404	0.352	0.34	0.73	1.36	0.154	5.17%
7/6/2023	0.001	0.282	0.523	0.003	0.403	0.353	0.43	0.70	1.48	0.155	5.16%
7/7/2023	0.002	0.262	0.531	0.003	0.405	0.357	0.51	0.65	1.49	0.154	5.16%
7/10/2023	0.002	0.247	0.550	0.003	0.403	0.354	0.58	0.61	1.55	0.156	5.14%
7/11/2023	0.002	0.261	0.529	0.003	0.403	0.354	0.54	0.65	1.50	0.154	5.14%
7/12/2023	0.002	0.257	0.534	0.003	0.402	0.353	0.58	0.64	1.51	0.155	5.14%
7/13/2023	0.002	0.252	0.519	0.003	0.402	0.354	0.62	0.63	1.47	0.154	5.13%
7/14/2023	0.002	0.247	0.521	0.003	0.402	0.354	0.61	0.61	1.47	0.154	5.13%
7/17/2023	0.002	0.251	0.519	0.003	0.402	0.354	0.58	0.62	1.47	0.154	5.13%
7/18/2023	0.002	0.249	0.524	0.003	0.403	0.355	0.58	0.62	1.47	0.155	5.13%
7/19/2023	0.002	0.235	0.525	0.003	0.403	0.355	0.52	0.58	1.48	0.153	5.14%
7/20/2023	0.002	0.238	0.521	0.003	0.404	0.358	0.53	0.59	1.46	0.152	5.14%
7/21/2023	0.002	0.232	0.518	0.003	0.404	0.359	0.52	0.57	1.45	0.151	5.14%
7/24/2023	0.002	0.233	0.518	0.003	0.405	0.358	0.53	0.58	1.44	0.153	5.14%
7/25/2023	0.002	0.216	0.543	0.003	0.404	0.356	0.51	0.53	1.52	0.152	5.14%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
7/26/2023	0.002	0.214	0.539	0.003	0.404	0.358	0.50	0.53	1.51	0.151	5.14%
7/27/2023	0.002	0.210	0.547	0.003	0.402	0.356	0.58	0.52	1.54	0.153	5.12%
7/28/2023	0.002	0.209	0.546	0.003	0.404	0.358	0.60	0.52	1.53	0.154	5.12%
7/31/2023	0.003	0.383	0.476	0.003	0.401	0.351	0.79	0.96	1.36	0.167	5.02%
8/1/2023	0.003	0.502	0.383	0.003	0.400	0.350	0.98	1.26	1.09	0.170	4.98%
8/2/2023	0.003	0.541	0.354	0.003	0.403	0.352	1.02	1.34	1.01	0.172	4.97%
8/3/2023	0.003	0.508	0.418	0.003	0.400	0.351	0.87	1.27	1.19	0.175	4.94%
8/4/2023	0.002	0.557	0.376	0.003	0.399	0.351	0.76	1.39	1.07	0.178	4.92%
8/7/2023	0.003	0.528	0.454	0.003	0.399	0.355	0.79	1.32	1.28	0.184	4.90%
8/8/2023	0.003	0.385	0.608	0.003	0.400	0.358	0.85	0.96	1.70	0.184	4.88%
8/9/2023	0.003	0.399	0.594	0.003	0.400	0.359	0.82	1.00	1.65	0.184	4.88%
8/10/2023	0.002	0.434	0.552	0.003	0.397	0.357	0.70	1.09	1.55	0.185	4.86%
8/11/2023	0.002	0.424	0.577	0.003	0.396	0.358	0.59	1.07	1.61	0.186	4.85%
8/14/2023	0.002	0.440	0.578	0.003	0.397	0.358	0.60	1.11	1.61	0.187	4.85%
8/15/2023	0.002	0.442	0.577	0.003	0.398	0.360	0.61	1.11	1.60	0.188	4.85%
8/16/2023	0.002	0.458	0.564	0.003	0.398	0.360	0.54	1.15	1.57	0.186	4.85%
8/17/2023	0.002	0.437	0.599	0.003	0.398	0.361	0.57	1.10	1.66	0.188	4.85%
8/18/2023	0.002	0.422	0.609	0.003	0.399	0.363	0.59	1.06	1.68	0.187	4.85%
8/21/2023	0.001	0.336	0.812	0.003	0.373	0.341	0.22	0.90	2.38	0.225	4.53%
8/22/2023	0.000	0.322	0.819	0.003	0.374	0.342	0.12	0.86	2.40	0.225	4.53%
8/23/2023	0.001	0.305	0.827	0.003	0.376	0.342	0.19	0.81	2.42	0.223	4.53%
8/24/2023	0.001	0.290	0.827	0.003	0.376	0.342	0.23	0.77	2.42	0.226	4.53%
8/25/2023	0.001	0.265	0.826	0.003	0.377	0.343	0.28	0.70	2.41	0.219	4.54%
8/28/2023	0.000	0.291	0.780	0.003	0.375	0.342	0.16	0.78	2.28	0.222	4.52%
8/29/2023	0.001	0.324	0.764	0.003	0.377	0.343	0.26	0.86	2.23	0.228	4.52%
8/30/2023	0.000	0.442	0.806	0.003	0.375	0.341	0.17	1.18	2.36	0.234	4.49%
8/31/2023	0.001	0.424	0.796	0.003	0.369	0.336	0.38	1.15	2.37	0.240	4.42%
9/1/2023	0.001	0.423	0.808	0.003	0.370	0.336	0.31	1.14	2.41	0.239	4.42%
9/5/2023	0.001	0.420	0.809	0.003	0.371	0.336	0.32	1.13	2.41	0.239	4.42%
9/6/2023	0.001	0.385	0.846	0.003	0.372	0.338	0.39	1.03	2.50	0.241	4.42%
9/7/2023	0.001	0.390	0.840	0.003	0.372	0.339	0.38	1.05	2.48	0.241	4.42%
9/8/2023	0.001	0.326	0.945	0.003	0.366	0.335	0.24	0.89	2.82	0.252	4.34%
9/11/2023	0.001	0.328	0.933	0.003	0.366	0.337	0.21	0.90	2.77	0.251	4.34%
9/12/2023	0.001	0.300	0.967	0.003	0.369	0.344	0.20	0.81	2.81	0.255	4.34%
9/13/2023	0.000	0.261	0.970	0.003	0.368	0.342	-0.03	0.71	2.83	0.248	4.32%
9/14/2023	0.000	0.261	0.968	0.003	0.369	0.343	-0.02	0.71	2.82	0.247	4.32%
9/15/2023	0.000	0.245	0.957	0.003	0.372	0.344	0.01	0.66	2.78	0.239	4.33%
9/18/2023	0.000	0.255	0.941	0.003	0.371	0.344	-0.06	0.69	2.74	0.243	4.32%
9/19/2023	0.000	0.197	0.999	0.003	0.373	0.345	-0.07	0.53	2.90	0.240	4.33%
9/20/2023	0.000	0.200	0.995	0.003	0.373	0.344	-0.08	0.54	2.89	0.240	4.33%

## Exhibit-22

## Cassava Synthetic Stock Regression Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Coefficients			Standard Error			t-statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/21/2023	0.000	0.212	0.975	0.003	0.375	0.347	-0.01	0.56	2.81	0.241	4.33%
9/22/2023	-0.001	0.386	0.928	0.003	0.345	0.319	-0.52	1.12	2.91	0.284	3.98%
9/25/2023	-0.001	0.386	0.923	0.003	0.345	0.320	-0.52	1.12	2.88	0.282	3.98%
9/26/2023	-0.003	0.596	0.837	0.002	0.294	0.273	-1.24	2.03	3.07	0.371	3.39%
9/27/2023	-0.003	0.646	0.796	0.002	0.290	0.270	-1.32	2.23	2.95	0.309	3.39%
9/28/2023	-0.003	0.654	0.848	0.002	0.284	0.264	-1.59	2.30	3.21	0.326	3.32%
9/29/2023	-0.003	0.660	0.840	0.002	0.284	0.266	-1.62	2.32	3.16	0.326	3.32%
10/2/2023	-0.003	0.605	1.010	0.002	0.280	0.267	-1.47	2.16	3.78	0.348	3.25%
10/3/2023	-0.003	0.627	0.995	0.002	0.280	0.266	-1.46	2.23	3.74	0.351	3.26%
10/4/2023	-0.003	0.566	1.011	0.002	0.284	0.269	-1.25	2.00	3.76	0.346	3.29%
10/5/2023	-0.002	0.628	0.998	0.002	0.287	0.270	-1.07	2.19	3.69	0.341	3.30%
10/6/2023	-0.002	0.680	0.994	0.002	0.287	0.268	-1.04	2.37	3.71	0.345	3.29%
10/9/2023	-0.002	0.680	0.995	0.002	0.286	0.268	-1.00	2.38	3.72	0.345	3.29%
10/10/2023	-0.002	0.691	1.001	0.002	0.284	0.266	-1.15	2.43	3.77	0.350	3.28%
10/11/2023	-0.002	0.683	1.000	0.002	0.286	0.266	-1.08	2.39	3.76	0.347	3.28%
10/12/2023	-0.002	0.648	0.996	0.002	0.283	0.263	-1.00	2.29	3.78	0.348	3.24%

**Source:** Computations performed by Crowninshield Financial Research, Inc.**Notes:** Dummy variables were used to control for potentially abnormal returns on 8-K event dates, excluding earnings announcements. These dates are listed in Exhibit-14. For the regressions on event dates prior to 15 January 2021, the estimation periods include all available prior Cassava options trading dates. For 15 January 2021 onwards, all estimation periods are the 252 trading days prior to each respective date.

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/14/2020	-0.005	1.379	-0.780	0.010	0.786	0.833	-0.51	1.76	-0.94	0.202	13.18%
9/15/2020	-0.005	1.379	-0.780	0.010	0.786	0.833	-0.51	1.76	-0.94	0.199	13.18%
9/16/2020	-0.006	1.390	-0.799	0.010	0.784	0.830	-0.56	1.77	-0.96	0.197	13.15%
9/17/2020	-0.006	1.391	-0.799	0.010	0.781	0.828	-0.56	1.78	-0.97	0.198	13.11%
9/18/2020	-0.006	1.388	-0.798	0.010	0.779	0.825	-0.56	1.78	-0.97	0.224	13.07%
9/21/2020	-0.003	1.229	-0.638	0.010	0.793	0.840	-0.34	1.55	-0.76	0.187	13.34%
9/22/2020	-0.004	1.220	-0.624	0.010	0.789	0.834	-0.36	1.55	-0.75	0.188	13.30%
9/23/2020	-0.003	1.224	-0.623	0.010	0.787	0.832	-0.32	1.56	-0.75	0.188	13.27%
9/24/2020	-0.004	1.243	-0.634	0.010	0.783	0.829	-0.35	1.59	-0.76	0.188	13.24%
9/25/2020	-0.004	1.238	-0.628	0.010	0.779	0.825	-0.36	1.59	-0.76	0.194	13.20%
9/28/2020	-0.003	1.216	-0.570	0.010	0.780	0.825	-0.27	1.56	-0.69	0.186	13.23%
9/29/2020	-0.003	1.202	-0.559	0.010	0.777	0.822	-0.29	1.55	-0.68	0.186	13.19%
9/30/2020	-0.003	1.196	-0.554	0.010	0.774	0.820	-0.27	1.54	-0.68	0.186	13.15%
10/1/2020	-0.003	1.197	-0.554	0.010	0.772	0.817	-0.27	1.55	-0.68	0.186	13.12%
10/2/2020	-0.003	1.197	-0.555	0.010	0.770	0.815	-0.28	1.55	-0.68	0.187	13.08%
10/5/2020	-0.003	1.170	-0.516	0.010	0.766	0.809	-0.32	1.53	-0.64	0.187	13.05%
10/6/2020	-0.003	1.114	-0.431	0.010	0.759	0.796	-0.27	1.47	-0.54	0.186	13.03%
10/7/2020	-0.003	1.114	-0.430	0.010	0.757	0.793	-0.28	1.47	-0.54	0.187	12.99%
10/8/2020	-0.002	1.110	-0.414	0.010	0.756	0.791	-0.25	1.47	-0.52	0.186	12.96%
10/9/2020	-0.002	1.112	-0.416	0.010	0.753	0.788	-0.25	1.48	-0.53	0.186	12.93%
10/12/2020	-0.003	1.110	-0.417	0.009	0.751	0.786	-0.27	1.48	-0.53	0.186	12.89%
10/13/2020	-0.003	1.098	-0.409	0.009	0.749	0.784	-0.30	1.47	-0.52	0.186	12.86%
10/14/2020	-0.003	1.100	-0.411	0.009	0.745	0.781	-0.30	1.48	-0.53	0.186	12.83%
10/15/2020	-0.003	1.097	-0.407	0.009	0.743	0.778	-0.31	1.48	-0.52	0.186	12.79%
10/16/2020	-0.003	1.083	-0.389	0.009	0.736	0.768	-0.33	1.47	-0.51	0.186	12.76%
10/19/2020	-0.003	1.087	-0.394	0.009	0.734	0.766	-0.34	1.48	-0.51	0.187	12.73%
10/20/2020	-0.003	1.084	-0.382	0.009	0.732	0.764	-0.38	1.48	-0.50	0.187	12.70%
10/21/2020	-0.004	1.069	-0.366	0.009	0.729	0.761	-0.41	1.47	-0.48	0.187	12.67%
10/22/2020	-0.004	1.051	-0.342	0.009	0.726	0.756	-0.44	1.45	-0.45	0.187	12.64%
10/23/2020	-0.004	1.053	-0.345	0.009	0.724	0.754	-0.44	1.45	-0.46	0.187	12.61%
10/26/2020	-0.004	1.056	-0.346	0.009	0.723	0.752	-0.41	1.46	-0.46	0.187	12.58%
10/27/2020	-0.004	1.061	-0.349	0.009	0.720	0.750	-0.42	1.47	-0.47	0.187	12.55%
10/28/2020	-0.004	1.058	-0.346	0.009	0.717	0.747	-0.42	1.48	-0.46	0.187	12.52%
10/29/2020	-0.004	1.065	-0.347	0.009	0.714	0.745	-0.43	1.49	-0.47	0.187	12.49%
10/30/2020	-0.004	1.066	-0.348	0.009	0.712	0.743	-0.43	1.50	-0.47	0.188	12.46%
11/2/2020	-0.004	1.056	-0.327	0.009	0.710	0.740	-0.46	1.49	-0.44	0.189	12.43%
11/3/2020	-0.004	1.083	-0.351	0.009	0.707	0.738	-0.42	1.53	-0.48	0.188	12.41%
11/4/2020	-0.004	1.086	-0.350	0.009	0.706	0.736	-0.41	1.54	-0.48	0.199	12.38%
11/5/2020	-0.004	1.086	-0.350	0.009	0.706	0.736	-0.41	1.54	-0.48	0.197	12.38%
11/6/2020	-0.004	1.004	-0.275	0.009	0.700	0.732	-0.48	1.43	-0.38	0.193	12.38%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
11/9/2020	-0.004	1.011	-0.284	0.009	0.696	0.727	-0.47	1.45	-0.39	0.194	12.35%
11/10/2020	-0.004	0.985	-0.258	0.009	0.692	0.722	-0.50	1.42	-0.36	0.193	12.32%
11/11/2020	-0.004	0.986	-0.259	0.009	0.690	0.720	-0.52	1.43	-0.36	0.195	12.29%
11/12/2020	-0.004	0.979	-0.244	0.009	0.689	0.719	-0.47	1.42	-0.34	0.193	12.28%
11/13/2020	-0.004	0.967	-0.233	0.008	0.686	0.717	-0.45	1.41	-0.33	0.209	12.25%
11/16/2020	-0.004	0.967	-0.233	0.008	0.686	0.717	-0.45	1.41	-0.33	0.205	12.25%
11/17/2020	-0.004	0.957	-0.224	0.008	0.683	0.714	-0.47	1.40	-0.31	0.205	12.22%
11/18/2020	-0.004	0.956	-0.222	0.008	0.681	0.712	-0.48	1.40	-0.31	0.206	12.19%
11/19/2020	-0.004	0.942	-0.200	0.008	0.679	0.709	-0.51	1.39	-0.28	0.205	12.17%
11/20/2020	-0.004	0.942	-0.200	0.008	0.678	0.707	-0.52	1.39	-0.28	0.205	12.14%
11/23/2020	-0.004	0.946	-0.204	0.008	0.675	0.704	-0.52	1.40	-0.29	0.206	12.11%
11/24/2020	-0.005	0.940	-0.199	0.008	0.673	0.702	-0.55	1.40	-0.28	0.205	12.08%
11/25/2020	-0.004	0.942	-0.202	0.008	0.667	0.697	-0.55	1.41	-0.29	0.206	12.05%
11/27/2020	-0.004	0.935	-0.192	0.008	0.666	0.695	-0.52	1.40	-0.28	0.205	12.03%
11/30/2020	-0.004	0.911	-0.162	0.008	0.659	0.685	-0.50	1.38	-0.24	0.205	12.01%
12/1/2020	-0.004	0.916	-0.167	0.008	0.655	0.681	-0.51	1.40	-0.25	0.206	11.98%
12/2/2020	-0.004	0.910	-0.163	0.008	0.653	0.679	-0.53	1.39	-0.24	0.206	11.95%
12/3/2020	-0.004	0.908	-0.161	0.008	0.652	0.677	-0.54	1.39	-0.24	0.206	11.93%
12/4/2020	-0.004	0.904	-0.155	0.008	0.650	0.675	-0.53	1.39	-0.23	0.206	11.90%
12/7/2020	-0.004	0.905	-0.154	0.008	0.648	0.674	-0.52	1.40	-0.23	0.206	11.87%
12/8/2020	-0.004	0.905	-0.154	0.008	0.647	0.672	-0.53	1.40	-0.23	0.206	11.85%
12/9/2020	-0.004	0.891	-0.134	0.008	0.645	0.669	-0.50	1.38	-0.20	0.206	11.82%
12/10/2020	-0.004	0.893	-0.138	0.008	0.643	0.666	-0.50	1.39	-0.21	0.206	11.80%
12/11/2020	-0.004	0.900	-0.147	0.008	0.641	0.663	-0.51	1.40	-0.22	0.206	11.77%
12/14/2020	-0.004	0.892	-0.140	0.008	0.639	0.662	-0.48	1.40	-0.21	0.206	11.75%
12/15/2020	-0.004	0.912	-0.163	0.008	0.633	0.654	-0.50	1.44	-0.25	0.206	11.73%
12/16/2020	-0.004	0.919	-0.168	0.008	0.630	0.651	-0.49	1.46	-0.26	0.206	11.70%
12/17/2020	-0.004	0.918	-0.167	0.008	0.628	0.649	-0.50	1.46	-0.26	0.207	11.68%
12/18/2020	-0.004	0.912	-0.157	0.008	0.627	0.647	-0.47	1.46	-0.24	0.206	11.65%
12/21/2020	-0.004	0.916	-0.161	0.008	0.625	0.646	-0.49	1.47	-0.25	0.207	11.63%
12/22/2020	-0.004	0.924	-0.169	0.008	0.623	0.644	-0.51	1.48	-0.26	0.206	11.61%
12/23/2020	-0.004	0.924	-0.170	0.008	0.622	0.643	-0.52	1.49	-0.26	0.206	11.58%
12/24/2020	-0.004	0.924	-0.170	0.008	0.621	0.641	-0.52	1.49	-0.26	0.206	11.56%
12/28/2020	-0.004	0.925	-0.171	0.008	0.619	0.639	-0.52	1.50	-0.27	0.207	11.53%
12/29/2020	-0.004	0.925	-0.171	0.008	0.619	0.639	-0.52	1.50	-0.27	0.204	11.53%
12/30/2020	-0.004	0.915	-0.156	0.007	0.617	0.637	-0.55	1.48	-0.24	0.204	11.51%
12/31/2020	-0.004	0.915	-0.154	0.007	0.616	0.636	-0.54	1.48	-0.24	0.204	11.49%
1/4/2021	-0.004	0.909	-0.148	0.007	0.614	0.633	-0.56	1.48	-0.23	0.204	11.47%
1/5/2021	-0.004	0.898	-0.141	0.007	0.612	0.632	-0.53	1.47	-0.22	0.205	11.45%
1/6/2021	-0.004	0.915	-0.155	0.007	0.611	0.631	-0.49	1.50	-0.25	0.204	11.43%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
1/7/2021	-0.003	0.909	-0.143	0.007	0.610	0.630	-0.46	1.49	-0.23	0.204	11.42%
1/8/2021	-0.003	0.904	-0.134	0.007	0.608	0.626	-0.45	1.49	-0.21	0.204	11.39%
1/11/2021	-0.003	0.904	-0.134	0.007	0.607	0.625	-0.45	1.49	-0.21	0.204	11.37%
1/12/2021	-0.003	0.905	-0.134	0.007	0.606	0.623	-0.46	1.49	-0.21	0.204	11.34%
1/13/2021	-0.003	0.904	-0.134	0.007	0.604	0.622	-0.46	1.50	-0.21	0.226	11.32%
1/14/2021	-0.002	0.931	-0.166	0.007	0.614	0.632	-0.27	1.52	-0.26	0.199	11.50%
1/15/2021	-0.002	0.983	-0.230	0.007	0.610	0.626	-0.32	1.61	-0.37	0.197	11.50%
1/19/2021	-0.002	0.976	-0.224	0.007	0.609	0.626	-0.31	1.60	-0.36	0.205	11.50%
1/20/2021	-0.001	0.938	-0.159	0.007	0.613	0.629	-0.19	1.53	-0.25	0.196	11.56%
1/21/2021	-0.002	0.919	-0.143	0.007	0.613	0.629	-0.23	1.50	-0.23	0.195	11.57%
1/22/2021	-0.002	0.915	-0.139	0.007	0.612	0.628	-0.24	1.50	-0.22	0.195	11.57%
1/25/2021	-0.001	0.902	-0.124	0.007	0.612	0.628	-0.19	1.47	-0.20	0.201	11.58%
1/26/2021	0.000	0.871	-0.093	0.007	0.615	0.632	-0.02	1.42	-0.15	0.201	11.63%
1/27/2021	0.001	0.952	-0.198	0.007	0.618	0.634	0.09	1.54	-0.31	0.190	11.71%
1/28/2021	0.000	0.956	-0.232	0.007	0.615	0.630	0.01	1.55	-0.37	0.192	11.65%
1/29/2021	0.000	0.942	-0.223	0.007	0.615	0.630	0.00	1.53	-0.35	0.191	11.65%
2/1/2021	0.000	0.923	-0.213	0.007	0.614	0.630	0.06	1.50	-0.34	0.194	11.66%
2/2/2021	0.001	0.954	-0.222	0.007	0.615	0.632	0.13	1.55	-0.35	0.323	11.69%
2/3/2021	0.001	0.955	-0.224	0.007	0.617	0.634	0.12	1.55	-0.35	0.344	11.71%
2/4/2021	0.003	1.011	-0.294	0.008	0.633	0.652	0.33	1.60	-0.45	0.321	12.03%
2/5/2021	0.001	1.019	-0.341	0.008	0.644	0.665	0.17	1.58	-0.51	0.318	12.20%
2/8/2021	0.000	1.097	-0.459	0.008	0.655	0.675	-0.01	1.68	-0.68	0.305	12.41%
2/9/2021	0.000	1.099	-0.465	0.008	0.656	0.676	0.02	1.68	-0.69	0.302	12.43%
2/10/2021	0.000	1.088	-0.452	0.008	0.656	0.676	-0.01	1.66	-0.67	0.305	12.44%
2/11/2021	-0.001	1.057	-0.411	0.008	0.657	0.678	-0.09	1.61	-0.61	0.301	12.48%
2/12/2021	-0.001	1.058	-0.411	0.008	0.658	0.678	-0.09	1.61	-0.61	0.301	12.48%
2/16/2021	-0.001	1.059	-0.416	0.008	0.658	0.678	-0.11	1.61	-0.61	0.302	12.48%
2/17/2021	-0.001	1.058	-0.414	0.008	0.659	0.680	-0.08	1.61	-0.61	0.299	12.50%
2/18/2021	-0.001	1.059	-0.415	0.008	0.659	0.679	-0.09	1.61	-0.61	0.299	12.50%
2/19/2021	-0.001	1.055	-0.407	0.008	0.658	0.677	-0.07	1.60	-0.60	0.300	12.50%
2/22/2021	0.000	1.040	-0.386	0.008	0.658	0.678	-0.04	1.58	-0.57	0.299	12.51%
2/23/2021	-0.001	1.064	-0.404	0.008	0.660	0.679	-0.08	1.61	-0.60	0.297	12.53%
2/24/2021	-0.001	1.048	-0.399	0.008	0.659	0.677	-0.07	1.59	-0.59	0.297	12.52%
2/25/2021	-0.001	1.052	-0.399	0.008	0.660	0.677	-0.08	1.59	-0.59	0.297	12.52%
2/26/2021	0.000	1.019	-0.359	0.008	0.662	0.679	-0.04	1.54	-0.53	0.297	12.51%
3/1/2021	0.000	1.017	-0.370	0.008	0.662	0.679	-0.05	1.54	-0.55	0.297	12.51%
3/2/2021	0.000	1.005	-0.358	0.008	0.662	0.680	-0.02	1.52	-0.53	0.296	12.51%
3/3/2021	0.000	1.010	-0.398	0.008	0.661	0.680	-0.04	1.53	-0.59	0.297	12.50%
3/4/2021	0.000	0.983	-0.362	0.008	0.659	0.674	-0.06	1.49	-0.54	0.297	12.51%
3/5/2021	-0.001	0.974	-0.327	0.008	0.660	0.676	-0.09	1.48	-0.48	0.296	12.52%



## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/8/2021	-0.001	0.994	-0.343	0.008	0.663	0.676	-0.13	1.50	-0.51	0.296	12.52%
3/9/2021	-0.001	1.002	-0.358	0.008	0.663	0.674	-0.11	1.51	-0.53	0.298	12.52%
3/10/2021	0.000	0.906	-0.304	0.008	0.669	0.673	0.02	1.35	-0.45	0.293	12.54%
3/11/2021	0.000	0.975	-0.341	0.008	0.674	0.674	0.05	1.45	-0.51	0.294	12.53%
3/12/2021	0.001	0.932	-0.345	0.008	0.674	0.671	0.13	1.38	-0.51	0.294	12.51%
3/15/2021	0.001	0.887	-0.355	0.008	0.683	0.672	0.16	1.30	-0.53	0.292	12.51%
3/16/2021	0.001	0.831	-0.367	0.008	0.691	0.670	0.13	1.20	-0.55	0.292	12.50%
3/17/2021	0.001	0.953	-0.363	0.008	0.723	0.670	0.06	1.32	-0.54	0.296	12.49%
3/18/2021	0.001	0.944	-0.344	0.008	0.727	0.680	0.15	1.30	-0.51	0.292	12.55%
3/19/2021	0.001	0.884	-0.267	0.008	0.755	0.683	0.12	1.17	-0.39	0.289	12.56%
3/22/2021	0.001	0.891	-0.307	0.008	0.753	0.681	0.08	1.18	-0.45	0.290	12.54%
3/23/2021	0.001	0.838	-0.313	0.008	0.757	0.680	0.11	1.11	-0.46	0.290	12.53%
3/24/2021	0.001	0.796	-0.251	0.008	0.763	0.673	0.09	1.04	-0.37	0.290	12.54%
3/25/2021	0.000	0.701	-0.193	0.008	0.803	0.671	0.05	0.87	-0.29	0.289	12.54%
3/26/2021	0.000	0.655	-0.155	0.008	0.810	0.676	0.04	0.81	-0.23	0.290	12.54%
3/29/2021	0.000	0.755	-0.116	0.008	0.817	0.674	0.04	0.92	-0.17	0.291	12.52%
3/30/2021	0.000	0.818	-0.115	0.008	0.824	0.673	-0.03	0.99	-0.17	0.291	12.51%
3/31/2021	0.000	0.830	-0.082	0.008	0.824	0.676	-0.01	1.01	-0.12	0.292	12.51%
4/1/2021	0.000	0.827	-0.070	0.008	0.824	0.671	-0.01	1.00	-0.10	0.292	12.51%
4/5/2021	0.000	0.869	-0.070	0.008	0.834	0.671	-0.03	1.04	-0.10	0.292	12.51%
4/6/2021	-0.001	0.869	-0.150	0.008	0.831	0.675	-0.10	1.05	-0.22	0.293	12.48%
4/7/2021	-0.001	0.855	-0.141	0.008	0.834	0.674	-0.12	1.03	-0.21	0.293	12.48%
4/8/2021	-0.001	0.865	-0.129	0.008	0.861	0.672	-0.13	1.00	-0.19	0.292	12.48%
4/9/2021	-0.001	0.885	-0.154	0.008	0.862	0.676	-0.10	1.03	-0.23	0.292	12.48%
4/12/2021	-0.001	0.846	-0.152	0.008	0.868	0.675	-0.13	0.98	-0.22	0.295	12.48%
4/13/2021	-0.001	0.861	-0.111	0.008	0.872	0.675	-0.16	0.99	-0.16	0.292	12.50%
4/14/2021	-0.002	0.970	-0.178	0.008	0.872	0.672	-0.26	1.11	-0.26	0.294	12.46%
4/15/2021	-0.002	0.960	-0.187	0.008	0.871	0.670	-0.27	1.10	-0.28	0.294	12.46%
4/16/2021	-0.002	0.942	-0.192	0.008	0.875	0.670	-0.26	1.08	-0.29	0.294	12.46%
4/19/2021	-0.002	0.963	-0.220	0.008	0.877	0.677	-0.28	1.10	-0.33	0.294	12.45%
4/20/2021	-0.002	0.970	-0.206	0.008	0.878	0.682	-0.29	1.11	-0.30	0.295	12.45%
4/21/2021	-0.003	1.003	-0.224	0.008	0.888	0.689	-0.32	1.13	-0.32	0.295	12.46%
4/22/2021	-0.003	0.994	-0.226	0.008	0.895	0.691	-0.31	1.11	-0.33	0.292	12.48%
4/23/2021	-0.002	0.973	-0.218	0.008	0.900	0.692	-0.28	1.08	-0.31	0.292	12.49%
4/26/2021	-0.003	1.004	-0.220	0.008	0.890	0.686	-0.39	1.13	-0.32	0.297	12.37%
4/27/2021	-0.003	0.985	-0.184	0.008	0.890	0.684	-0.35	1.11	-0.27	0.297	12.38%
4/28/2021	-0.003	0.980	-0.190	0.008	0.893	0.685	-0.32	1.10	-0.28	0.296	12.38%
4/29/2021	-0.002	0.995	-0.215	0.008	0.894	0.688	-0.28	1.11	-0.31	0.295	12.39%
4/30/2021	-0.002	0.917	-0.187	0.008	0.905	0.688	-0.30	1.01	-0.27	0.295	12.38%
5/3/2021	-0.002	0.903	-0.190	0.008	0.905	0.688	-0.28	1.00	-0.28	0.296	12.38%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/4/2021	-0.003	0.912	-0.186	0.008	0.913	0.688	-0.33	1.00	-0.27	0.295	12.39%
5/5/2021	-0.003	0.932	-0.201	0.008	0.914	0.689	-0.39	1.02	-0.29	0.295	12.39%
5/6/2021	-0.003	0.934	-0.206	0.008	0.914	0.690	-0.38	1.02	-0.30	0.295	12.39%
5/7/2021	-0.003	0.930	-0.203	0.008	0.915	0.690	-0.38	1.02	-0.29	0.295	12.39%
5/10/2021	-0.003	0.936	-0.208	0.008	0.918	0.691	-0.38	1.02	-0.30	0.296	12.39%
5/11/2021	-0.004	0.847	-0.168	0.008	0.919	0.689	-0.47	0.92	-0.24	0.297	12.36%
5/12/2021	-0.004	0.919	-0.258	0.008	0.928	0.707	-0.50	0.99	-0.36	0.297	12.35%
5/13/2021	-0.004	0.867	-0.271	0.008	0.920	0.704	-0.45	0.94	-0.39	0.297	12.33%
5/14/2021	-0.003	0.823	-0.264	0.008	0.924	0.704	-0.41	0.89	-0.37	0.298	12.32%
5/17/2021	-0.003	0.832	-0.237	0.008	0.926	0.705	-0.38	0.90	-0.34	0.297	12.33%
5/18/2021	0.004	0.228	0.680	0.006	0.655	0.501	0.62	0.35	1.36	0.472	8.71%
5/19/2021	0.004	0.069	0.740	0.006	0.666	0.502	0.64	0.10	1.48	0.472	8.70%
5/20/2021	0.004	0.068	0.732	0.006	0.666	0.502	0.67	0.10	1.46	0.471	8.70%
5/21/2021	0.004	0.075	0.740	0.006	0.666	0.501	0.69	0.11	1.48	0.471	8.70%
5/24/2021	0.004	0.070	0.729	0.006	0.666	0.501	0.74	0.10	1.46	0.472	8.70%
5/25/2021	0.004	0.042	0.750	0.006	0.664	0.500	0.73	0.06	1.50	0.471	8.70%
5/26/2021	0.004	0.020	0.768	0.006	0.674	0.508	0.72	0.03	1.51	0.472	8.70%
5/27/2021	0.004	0.036	0.771	0.006	0.676	0.508	0.77	0.05	1.52	0.472	8.71%
5/28/2021	0.005	0.035	0.778	0.006	0.678	0.509	0.82	0.05	1.53	0.470	8.72%
6/1/2021	0.004	0.051	0.755	0.006	0.678	0.511	0.77	0.07	1.48	0.470	8.72%
6/2/2021	0.004	0.025	0.768	0.006	0.679	0.511	0.76	0.04	1.50	0.471	8.71%
6/3/2021	0.005	0.080	0.754	0.006	0.675	0.508	0.92	0.12	1.48	0.474	8.66%
6/4/2021	0.004	-0.581	1.211	0.005	0.625	0.470	0.72	-0.93	2.58	0.523	7.93%
6/7/2021	0.005	-0.561	1.147	0.005	0.608	0.457	0.99	-0.92	2.51	0.537	7.71%
6/8/2021	0.005	-0.648	1.193	0.005	0.612	0.450	0.97	-1.06	2.65	0.538	7.70%
6/9/2021	0.005	-0.624	1.192	0.005	0.613	0.450	1.02	-1.02	2.65	0.538	7.69%
6/10/2021	0.004	-0.526	1.134	0.005	0.611	0.447	0.88	-0.86	2.54	0.539	7.68%
6/11/2021	0.005	-0.567	1.150	0.005	0.611	0.445	0.93	-0.93	2.58	0.543	7.66%
6/14/2021	0.005	-0.439	1.092	0.005	0.649	0.449	1.00	-0.68	2.43	0.535	7.72%
6/15/2021	0.005	-0.404	1.084	0.005	0.651	0.449	1.02	-0.62	2.42	0.536	7.72%
6/16/2021	0.005	-0.415	1.090	0.005	0.651	0.448	0.97	-0.64	2.43	0.537	7.72%
6/17/2021	0.005	-0.445	1.081	0.005	0.656	0.450	1.05	-0.68	2.40	0.533	7.75%
6/18/2021	0.005	-0.441	1.077	0.005	0.656	0.450	1.04	-0.67	2.39	0.533	7.75%
6/21/2021	0.005	-0.452	1.087	0.005	0.652	0.449	1.10	-0.69	2.42	0.535	7.74%
6/22/2021	0.006	-0.501	1.131	0.005	0.663	0.461	1.13	-0.76	2.45	0.537	7.75%
6/23/2021	0.005	-0.520	1.138	0.005	0.664	0.461	1.09	-0.78	2.47	0.536	7.76%
6/24/2021	0.006	-0.517	1.141	0.005	0.664	0.461	1.12	-0.78	2.48	0.536	7.76%
6/25/2021	0.005	-0.228	1.106	0.005	0.662	0.454	0.92	-0.34	2.44	0.546	7.64%
6/28/2021	0.005	-0.203	1.107	0.005	0.662	0.453	0.94	-0.31	2.44	0.546	7.63%
6/29/2021	0.004	-0.113	1.110	0.005	0.667	0.453	0.90	-0.17	2.45	0.547	7.63%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/30/2021	0.005	0.035	1.036	0.005	0.669	0.453	0.96	0.05	2.29	0.549	7.59%
7/1/2021	0.005	0.009	1.033	0.005	0.669	0.452	0.94	0.01	2.28	0.549	7.58%
7/2/2021	0.005	0.009	1.043	0.005	0.669	0.452	1.01	0.01	2.31	0.550	7.58%
7/6/2021	0.005	0.017	1.044	0.005	0.668	0.451	1.04	0.03	2.31	0.550	7.57%
7/7/2021	0.005	0.011	1.032	0.005	0.671	0.450	1.06	0.02	2.29	0.550	7.58%
7/8/2021	0.006	0.005	1.023	0.005	0.676	0.451	1.13	0.01	2.27	0.550	7.58%
7/9/2021	0.006	-0.077	1.064	0.005	0.674	0.451	1.20	-0.11	2.36	0.550	7.60%
7/12/2021	0.005	-0.136	1.071	0.005	0.676	0.453	1.07	-0.20	2.36	0.545	7.64%
7/13/2021	0.005	-0.154	1.080	0.005	0.681	0.456	1.09	-0.23	2.37	0.545	7.64%
7/14/2021	0.005	-0.100	1.085	0.005	0.678	0.453	1.01	-0.15	2.40	0.549	7.60%
7/15/2021	0.005	-0.091	1.137	0.005	0.677	0.453	1.04	-0.14	2.51	0.554	7.59%
7/16/2021	0.005	0.003	1.127	0.005	0.682	0.456	0.94	0.00	2.47	0.547	7.64%
7/19/2021	0.004	0.059	1.102	0.005	0.677	0.453	0.85	0.09	2.43	0.547	7.64%
7/20/2021	0.005	0.003	1.161	0.005	0.667	0.450	0.94	0.00	2.58	0.549	7.62%
7/21/2021	0.005	0.074	1.165	0.005	0.665	0.451	1.04	0.11	2.58	0.556	7.63%
7/22/2021	0.006	0.141	1.196	0.005	0.681	0.465	1.16	0.21	2.57	0.539	7.78%
7/23/2021	0.006	0.142	1.193	0.005	0.683	0.466	1.22	0.21	2.56	0.537	7.80%
7/26/2021	0.006	0.128	1.192	0.005	0.683	0.467	1.18	0.19	2.55	0.537	7.80%
7/27/2021	0.006	0.113	1.240	0.005	0.679	0.464	1.12	0.17	2.67	0.539	7.79%
7/28/2021	0.006	0.086	1.263	0.005	0.680	0.468	1.21	0.13	2.70	0.538	7.79%
7/29/2021	0.006	0.074	1.275	0.005	0.677	0.462	1.23	0.11	2.76	0.549	7.79%
7/30/2021	0.006	0.090	1.265	0.005	0.686	0.467	1.24	0.13	2.71	0.567	7.81%
8/2/2021	0.005	0.242	1.218	0.005	0.720	0.490	0.89	0.34	2.49	0.525	8.20%
8/3/2021	0.005	0.196	1.247	0.005	0.728	0.497	0.98	0.27	2.51	0.520	8.24%
8/4/2021	0.005	0.178	1.284	0.005	0.730	0.503	1.01	0.24	2.55	0.518	8.26%
8/5/2021	0.005	0.152	1.305	0.005	0.728	0.502	1.01	0.21	2.60	0.521	8.26%
8/6/2021	0.006	0.137	1.355	0.005	0.732	0.503	1.08	0.19	2.70	0.518	8.29%
8/9/2021	0.006	0.169	1.342	0.005	0.730	0.500	1.14	0.23	2.69	0.519	8.26%
8/10/2021	0.006	0.123	1.391	0.005	0.725	0.493	1.13	0.17	2.82	0.520	8.26%
8/11/2021	0.006	0.094	1.411	0.005	0.723	0.491	1.09	0.13	2.87	0.521	8.23%
8/12/2021	0.006	0.142	1.313	0.005	0.715	0.482	1.21	0.20	2.72	0.522	8.21%
8/13/2021	0.006	0.080	1.320	0.005	0.715	0.481	1.20	0.11	2.74	0.522	8.20%
8/16/2021	0.007	0.070	1.326	0.005	0.715	0.481	1.26	0.10	2.76	0.523	8.19%
8/17/2021	0.006	0.057	1.347	0.005	0.714	0.480	1.20	0.08	2.81	0.525	8.18%
8/18/2021	0.006	0.235	1.213	0.005	0.711	0.479	1.06	0.33	2.53	0.519	8.24%
8/19/2021	0.006	0.238	1.197	0.005	0.711	0.479	1.12	0.33	2.50	0.519	8.23%
8/20/2021	0.006	0.229	1.227	0.005	0.709	0.474	1.06	0.32	2.59	0.520	8.22%
8/23/2021	0.006	0.239	1.220	0.005	0.708	0.474	1.08	0.34	2.58	0.522	8.22%
8/24/2021	0.006	0.239	1.252	0.005	0.709	0.470	1.17	0.34	2.66	0.521	8.22%
8/25/2021	0.007	0.342	1.183	0.005	0.710	0.472	1.25	0.48	2.51	0.541	8.20%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/26/2021	0.006	0.361	1.154	0.005	0.711	0.473	1.19	0.51	2.44	0.542	8.20%
8/27/2021	0.006	0.406	1.155	0.005	0.717	0.477	1.08	0.57	2.42	0.542	8.25%
8/30/2021	0.006	0.414	1.150	0.005	0.717	0.477	1.14	0.58	2.41	0.543	8.25%
8/31/2021	0.006	0.413	1.151	0.005	0.720	0.478	1.13	0.57	2.41	0.541	8.27%
9/1/2021	0.006	0.410	1.153	0.005	0.724	0.483	1.13	0.57	2.39	0.540	8.28%
9/2/2021	0.006	0.458	1.103	0.005	0.733	0.490	1.06	0.62	2.25	0.537	8.31%
9/3/2021	0.006	0.469	1.111	0.005	0.734	0.490	1.09	0.64	2.27	0.538	8.31%
9/7/2021	0.006	0.527	1.118	0.005	0.747	0.491	1.05	0.71	2.28	0.537	8.33%
9/8/2021	0.006	0.525	1.118	0.005	0.750	0.492	1.05	0.70	2.27	0.535	8.34%
9/9/2021	0.005	0.618	1.111	0.005	0.762	0.491	0.97	0.81	2.26	0.536	8.34%
9/10/2021	0.006	0.606	1.124	0.005	0.767	0.492	1.03	0.79	2.29	0.535	8.35%
9/13/2021	0.006	0.595	1.126	0.005	0.769	0.492	1.05	0.77	2.29	0.535	8.35%
9/14/2021	0.006	0.604	1.117	0.006	0.770	0.493	1.01	0.78	2.27	0.536	8.36%
9/15/2021	0.006	0.604	1.117	0.006	0.770	0.493	1.01	0.78	2.27	0.433	8.36%
9/16/2021	0.006	0.619	1.140	0.006	0.767	0.492	1.11	0.81	2.32	0.435	8.34%
9/17/2021	0.006	0.615	1.141	0.006	0.767	0.492	1.12	0.80	2.32	0.436	8.34%
9/20/2021	0.007	0.548	1.176	0.006	0.767	0.491	1.18	0.71	2.39	0.434	8.36%
9/21/2021	0.005	0.844	1.023	0.005	0.739	0.474	0.94	1.14	2.16	0.456	8.04%
9/22/2021	0.005	0.823	1.050	0.005	0.740	0.475	1.00	1.11	2.21	0.454	8.05%
9/23/2021	0.005	0.804	1.050	0.005	0.742	0.476	0.96	1.08	2.21	0.455	8.07%
9/24/2021	0.005	0.727	1.064	0.005	0.756	0.478	1.01	0.96	2.23	0.453	8.08%
9/27/2021	0.006	0.752	1.036	0.005	0.756	0.476	1.04	0.99	2.18	0.453	8.08%
9/28/2021	0.005	0.670	1.002	0.005	0.754	0.475	0.95	0.89	2.11	0.453	8.05%
9/29/2021	0.005	0.738	0.992	0.005	0.756	0.474	0.98	0.98	2.09	0.454	8.05%
9/30/2021	0.005	0.743	0.994	0.005	0.757	0.474	0.92	0.98	2.10	0.454	8.05%
10/1/2021	0.005	0.745	0.994	0.005	0.754	0.473	0.93	0.99	2.10	0.454	8.05%
10/4/2021	0.005	0.714	1.022	0.005	0.746	0.467	0.93	0.96	2.19	0.456	8.05%
10/5/2021	0.005	0.713	1.003	0.005	0.747	0.470	0.96	0.95	2.13	0.454	8.06%
10/6/2021	0.005	0.732	0.980	0.005	0.745	0.475	0.97	0.98	2.06	0.454	8.07%
10/7/2021	0.005	0.728	0.980	0.005	0.749	0.476	0.97	0.97	2.06	0.451	8.08%
10/8/2021	0.005	0.711	0.974	0.005	0.750	0.477	0.95	0.95	2.04	0.451	8.08%
10/11/2021	0.005	0.713	0.977	0.005	0.752	0.477	0.92	0.95	2.05	0.451	8.09%
10/12/2021	0.005	0.740	0.976	0.005	0.751	0.476	0.95	0.99	2.05	0.452	8.08%
10/13/2021	0.005	0.796	0.967	0.005	0.753	0.476	1.01	1.06	2.03	0.453	8.07%
10/14/2021	0.006	0.794	0.975	0.005	0.755	0.477	1.06	1.05	2.04	0.453	8.07%
10/15/2021	0.006	0.736	0.975	0.005	0.753	0.478	1.02	0.98	2.04	0.452	8.08%
10/18/2021	0.005	0.688	1.006	0.005	0.754	0.482	0.96	0.91	2.09	0.450	8.10%
10/19/2021	0.005	0.685	1.008	0.005	0.752	0.480	1.01	0.91	2.10	0.451	8.09%
10/20/2021	0.005	0.641	0.985	0.005	0.755	0.481	0.98	0.85	2.05	0.449	8.11%
10/21/2021	0.005	0.654	0.974	0.005	0.755	0.481	1.00	0.87	2.03	0.449	8.10%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/22/2021	0.006	0.660	0.956	0.005	0.755	0.482	1.03	0.87	1.98	0.449	8.10%
10/25/2021	0.006	0.664	0.968	0.005	0.755	0.482	1.04	0.88	2.01	0.450	8.10%
10/26/2021	0.005	0.654	0.969	0.005	0.756	0.483	0.99	0.87	2.01	0.448	8.11%
10/27/2021	0.005	0.630	0.974	0.005	0.764	0.483	0.99	0.83	2.01	0.448	8.11%
10/28/2021	0.005	0.635	0.988	0.005	0.765	0.483	0.97	0.83	2.04	0.447	8.11%
10/29/2021	0.005	0.595	0.977	0.005	0.788	0.483	0.95	0.76	2.02	0.447	8.11%
11/1/2021	0.005	0.596	0.980	0.005	0.790	0.483	0.93	0.76	2.03	0.447	8.12%
11/2/2021	0.005	0.570	0.981	0.005	0.791	0.483	1.00	0.72	2.03	0.455	8.12%
11/3/2021	0.006	0.467	1.053	0.006	0.808	0.490	1.11	0.58	2.15	0.438	8.24%
11/4/2021	0.006	0.464	1.035	0.006	0.814	0.490	1.08	0.57	2.11	0.463	8.24%
11/5/2021	0.006	0.464	1.035	0.006	0.814	0.490	1.08	0.57	2.11	0.455	8.24%
11/8/2021	0.007	0.806	0.858	0.006	0.824	0.485	1.21	0.98	1.77	0.456	8.23%
11/9/2021	0.006	0.793	0.872	0.006	0.824	0.487	1.17	0.96	1.79	0.459	8.23%
11/10/2021	0.006	0.855	0.877	0.006	0.834	0.491	1.09	1.02	1.79	0.457	8.26%
11/11/2021	0.006	0.919	0.891	0.006	0.835	0.492	1.02	1.10	1.81	0.453	8.29%
11/12/2021	0.006	0.908	0.876	0.006	0.835	0.492	1.01	1.09	1.78	0.454	8.28%
11/15/2021	0.005	0.895	0.880	0.006	0.839	0.493	0.93	1.07	1.78	0.455	8.29%
11/16/2021	0.005	0.889	0.897	0.006	0.841	0.494	0.83	1.06	1.81	0.438	8.32%
11/17/2021	0.005	0.934	0.881	0.006	0.846	0.495	0.86	1.10	1.78	0.452	8.31%
11/18/2021	0.004	1.066	0.844	0.006	0.864	0.506	0.64	1.23	1.67	0.426	8.50%
11/19/2021	0.004	1.052	0.829	0.006	0.866	0.508	0.67	1.21	1.63	0.425	8.52%
11/22/2021	0.004	1.010	0.853	0.006	0.868	0.509	0.75	1.16	1.68	0.422	8.54%
11/23/2021	0.004	0.993	0.863	0.006	0.869	0.510	0.77	1.14	1.69	0.422	8.53%
11/24/2021	0.005	1.025	0.855	0.006	0.871	0.510	0.80	1.18	1.68	0.424	8.53%
11/26/2021	0.005	1.041	0.853	0.006	0.885	0.515	0.86	1.18	1.66	0.422	8.55%
11/29/2021	0.005	1.087	0.832	0.006	0.858	0.509	0.82	1.27	1.64	0.422	8.54%
11/30/2021	0.005	1.047	0.846	0.006	0.858	0.516	0.79	1.22	1.64	0.422	8.55%
12/1/2021	0.005	1.014	0.864	0.006	0.850	0.517	0.82	1.19	1.67	0.423	8.55%
12/2/2021	0.005	1.094	0.873	0.006	0.850	0.517	0.80	1.29	1.69	0.423	8.55%
12/3/2021	0.005	1.052	0.883	0.006	0.843	0.516	0.79	1.25	1.71	0.423	8.55%
12/6/2021	0.004	1.062	0.893	0.006	0.843	0.515	0.77	1.26	1.73	0.423	8.55%
12/7/2021	0.004	0.988	0.934	0.006	0.834	0.509	0.74	1.19	1.83	0.423	8.56%
12/8/2021	0.004	0.999	0.945	0.006	0.831	0.506	0.76	1.20	1.87	0.424	8.56%
12/9/2021	0.004	1.002	0.944	0.006	0.832	0.507	0.77	1.20	1.86	0.425	8.56%
12/10/2021	0.004	1.029	0.974	0.006	0.832	0.507	0.70	1.24	1.92	0.424	8.57%
12/13/2021	0.004	0.983	1.015	0.006	0.828	0.505	0.72	1.19	2.01	0.424	8.56%
12/14/2021	0.004	0.984	1.016	0.006	0.820	0.501	0.69	1.20	2.03	0.425	8.56%
12/15/2021	0.004	0.880	1.086	0.006	0.823	0.507	0.78	1.07	2.14	0.426	8.55%
12/16/2021	0.004	0.827	1.070	0.006	0.828	0.508	0.73	1.00	2.11	0.424	8.56%
12/17/2021	0.004	0.844	1.069	0.006	0.827	0.508	0.71	1.02	2.10	0.424	8.57%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/20/2021	0.004	0.892	1.023	0.006	0.818	0.500	0.66	1.09	2.05	0.428	8.57%
12/21/2021	0.003	1.005	1.017	0.006	0.819	0.503	0.56	1.23	2.02	0.426	8.62%
12/22/2021	0.003	0.982	1.030	0.006	0.822	0.504	0.60	1.20	2.04	0.424	8.63%
12/23/2021	0.004	0.978	1.033	0.006	0.817	0.503	0.62	1.20	2.05	0.424	8.63%
12/27/2021	0.004	0.976	1.033	0.006	0.817	0.503	0.62	1.19	2.05	0.424	8.63%
12/28/2021	0.004	1.051	0.990	0.006	0.809	0.499	0.65	1.30	1.98	0.424	8.64%
12/29/2021	0.004	1.053	0.997	0.006	0.807	0.498	0.61	1.30	2.00	0.425	8.62%
12/30/2021	0.004	1.057	0.979	0.006	0.807	0.498	0.62	1.31	1.97	0.425	8.62%
12/31/2021	0.004	1.051	0.982	0.006	0.807	0.498	0.63	1.30	1.97	0.425	8.62%
1/3/2022	0.004	1.063	0.974	0.006	0.808	0.498	0.64	1.32	1.96	0.426	8.62%
1/4/2022	0.004	1.130	0.969	0.006	0.813	0.499	0.66	1.39	1.94	0.425	8.63%
1/5/2022	0.004	1.099	0.962	0.006	0.813	0.495	0.63	1.35	1.94	0.425	8.62%
1/6/2022	0.004	1.017	0.901	0.006	0.812	0.493	0.68	1.25	1.83	0.423	8.64%
1/7/2022	0.004	1.027	0.910	0.006	0.813	0.495	0.68	1.26	1.84	0.423	8.64%
1/10/2022	0.004	1.031	0.914	0.006	0.813	0.495	0.68	1.27	1.85	0.423	8.64%
1/11/2022	0.004	1.033	0.910	0.006	0.813	0.494	0.68	1.27	1.84	0.423	8.64%
1/12/2022	0.004	1.043	0.910	0.006	0.812	0.494	0.70	1.28	1.84	0.423	8.63%
1/13/2022	0.002	0.997	0.945	0.006	0.783	0.475	0.45	1.27	1.99	0.444	8.34%
1/14/2022	0.003	0.916	1.052	0.006	0.780	0.477	0.54	1.17	2.21	0.447	8.30%
1/18/2022	0.003	0.935	1.043	0.006	0.782	0.476	0.52	1.20	2.19	0.449	8.30%
1/19/2022	0.002	0.935	1.001	0.005	0.774	0.470	0.35	1.21	2.13	0.453	8.22%
1/20/2022	0.002	1.001	0.982	0.005	0.775	0.470	0.40	1.29	2.09	0.456	8.21%
1/21/2022	0.002	1.052	0.979	0.005	0.775	0.471	0.34	1.36	2.08	0.454	8.22%
1/24/2022	0.002	1.075	0.959	0.005	0.768	0.472	0.30	1.40	2.03	0.455	8.22%
1/25/2022	0.001	1.142	0.878	0.005	0.761	0.469	0.19	1.50	1.87	0.458	8.14%
1/26/2022	0.000	1.042	0.987	0.005	0.746	0.462	0.06	1.40	2.14	0.470	8.00%
1/27/2022	0.000	1.144	1.003	0.005	0.751	0.461	0.00	1.52	2.18	0.473	7.98%
1/28/2022	0.000	1.204	0.995	0.005	0.751	0.459	0.05	1.60	2.17	0.475	7.96%
1/31/2022	0.000	1.312	0.936	0.005	0.759	0.461	-0.04	1.73	2.03	0.477	7.95%
2/1/2022	-0.001	1.209	0.961	0.005	0.756	0.459	-0.10	1.60	2.10	0.479	7.91%
2/2/2022	0.000	1.212	0.965	0.005	0.755	0.457	-0.09	1.61	2.11	0.278	7.89%
2/3/2022	-0.002	1.130	1.019	0.005	0.699	0.424	-0.47	1.62	2.40	0.316	7.34%
2/4/2022	-0.001	1.239	1.069	0.005	0.659	0.403	-0.13	1.88	2.65	0.351	6.98%
2/7/2022	0.001	1.237	1.213	0.004	0.613	0.376	0.32	2.02	3.22	0.396	6.51%
2/8/2022	0.001	1.253	1.201	0.004	0.611	0.375	0.29	2.05	3.21	0.367	6.49%
2/9/2022	0.001	1.255	1.194	0.004	0.609	0.374	0.32	2.06	3.19	0.368	6.49%
2/10/2022	0.002	1.282	1.158	0.004	0.601	0.370	0.46	2.13	3.13	0.377	6.42%
2/11/2022	0.003	1.196	1.125	0.004	0.605	0.373	0.61	1.98	3.02	0.365	6.48%
2/14/2022	0.003	1.209	1.128	0.004	0.606	0.373	0.67	1.99	3.02	0.364	6.48%
2/15/2022	0.003	1.203	1.139	0.004	0.605	0.371	0.65	1.99	3.07	0.361	6.47%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/16/2022	0.003	1.170	1.131	0.004	0.604	0.372	0.62	1.94	3.04	0.360	6.47%
2/17/2022	0.003	1.169	1.137	0.004	0.604	0.372	0.60	1.94	3.05	0.362	6.47%
2/18/2022	0.002	1.193	1.119	0.004	0.599	0.372	0.51	1.99	3.01	0.362	6.46%
2/22/2022	0.002	1.185	1.118	0.004	0.598	0.371	0.53	1.98	3.01	0.367	6.44%
2/23/2022	0.002	1.242	1.101	0.004	0.597	0.372	0.46	2.08	2.96	0.366	6.46%
2/24/2022	0.002	1.277	1.102	0.004	0.596	0.372	0.44	2.14	2.96	0.368	6.46%
2/25/2022	0.002	1.339	1.107	0.004	0.603	0.372	0.45	2.22	2.97	0.367	6.46%
2/28/2022	0.002	1.278	1.120	0.004	0.597	0.372	0.46	2.14	3.01	0.366	6.46%
3/1/2022	0.002	1.322	1.112	0.004	0.605	0.372	0.48	2.19	2.99	0.368	6.46%
3/2/2022	0.002	1.361	1.124	0.004	0.599	0.372	0.39	2.27	3.03	0.370	6.45%
3/3/2022	0.002	1.335	1.134	0.004	0.594	0.374	0.37	2.25	3.03	0.371	6.45%
3/4/2022	0.002	1.315	1.138	0.004	0.596	0.374	0.36	2.21	3.04	0.367	6.46%
3/7/2022	0.002	1.360	1.145	0.004	0.596	0.373	0.47	2.28	3.07	0.371	6.44%
3/8/2022	0.002	1.393	1.161	0.004	0.579	0.372	0.38	2.41	3.13	0.374	6.43%
3/9/2022	0.001	1.347	1.124	0.004	0.576	0.371	0.30	2.34	3.03	0.372	6.40%
3/10/2022	0.001	1.337	1.117	0.004	0.573	0.371	0.30	2.33	3.01	0.372	6.40%
3/11/2022	0.001	1.336	1.116	0.004	0.573	0.372	0.33	2.33	3.00	0.371	6.40%
3/14/2022	0.001	1.339	1.114	0.004	0.572	0.372	0.33	2.34	2.99	0.375	6.40%
3/15/2022	0.001	1.381	1.129	0.004	0.572	0.373	0.31	2.41	3.03	0.374	6.41%
3/16/2022	0.001	1.396	1.127	0.004	0.569	0.373	0.32	2.46	3.02	0.375	6.41%
3/17/2022	0.001	1.378	1.101	0.004	0.558	0.367	0.14	2.47	3.00	0.382	6.32%
3/18/2022	0.001	1.363	1.081	0.004	0.557	0.367	0.19	2.44	2.94	0.380	6.31%
3/21/2022	0.001	1.348	1.074	0.004	0.558	0.369	0.15	2.42	2.91	0.379	6.32%
3/22/2022	0.001	1.341	1.097	0.004	0.557	0.368	0.21	2.41	2.98	0.381	6.30%
3/23/2022	0.001	1.338	1.088	0.004	0.557	0.373	0.19	2.40	2.92	0.379	6.30%
3/24/2022	0.001	1.326	1.049	0.004	0.558	0.375	0.28	2.38	2.79	0.375	6.32%
3/25/2022	0.001	1.318	1.048	0.004	0.557	0.376	0.26	2.37	2.79	0.375	6.32%
3/28/2022	0.001	1.423	1.010	0.004	0.556	0.372	0.36	2.56	2.71	0.380	6.29%
3/29/2022	0.001	1.417	1.003	0.004	0.556	0.373	0.36	2.55	2.69	0.379	6.29%
3/30/2022	0.001	1.406	0.979	0.004	0.557	0.372	0.32	2.53	2.63	0.377	6.29%
3/31/2022	0.001	1.403	0.988	0.004	0.557	0.375	0.32	2.52	2.64	0.378	6.29%
4/1/2022	0.001	1.412	0.983	0.004	0.555	0.374	0.30	2.54	2.63	0.377	6.29%
4/4/2022	0.001	1.460	0.961	0.004	0.555	0.371	0.34	2.63	2.59	0.379	6.28%
4/5/2022	0.002	1.466	0.949	0.004	0.555	0.371	0.37	2.64	2.56	0.395	6.28%
4/6/2022	0.001	1.574	0.956	0.004	0.563	0.378	0.21	2.80	2.53	0.378	6.37%
4/7/2022	0.001	1.624	0.931	0.004	0.560	0.378	0.15	2.90	2.47	0.376	6.38%
4/8/2022	0.000	1.639	0.914	0.004	0.562	0.378	0.11	2.92	2.42	0.375	6.39%
4/11/2022	0.001	1.698	0.851	0.004	0.558	0.376	0.22	3.04	2.26	0.379	6.34%
4/12/2022	0.001	1.688	0.861	0.004	0.557	0.377	0.25	3.03	2.28	0.379	6.33%
4/13/2022	0.001	1.674	0.872	0.004	0.559	0.379	0.28	2.99	2.30	0.379	6.33%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
4/14/2022	0.001	1.687	0.870	0.004	0.559	0.378	0.31	3.02	2.31	0.381	6.33%
4/18/2022	0.001	1.690	0.870	0.004	0.558	0.378	0.33	3.03	2.30	0.381	6.33%
4/19/2022	0.001	1.681	0.878	0.004	0.556	0.373	0.32	3.02	2.35	0.387	6.33%
4/20/2022	0.001	1.494	0.931	0.004	0.562	0.378	0.20	2.66	2.46	0.373	6.41%
4/21/2022	0.000	1.509	0.918	0.004	0.563	0.379	0.10	2.68	2.42	0.371	6.43%
4/22/2022	0.000	1.563	0.920	0.004	0.563	0.379	0.00	2.78	2.43	0.370	6.43%
4/25/2022	0.000	1.400	0.946	0.004	0.560	0.380	0.01	2.50	2.49	0.367	6.44%
4/26/2022	0.000	1.406	0.948	0.004	0.561	0.381	0.04	2.51	2.48	0.366	6.45%
4/27/2022	0.000	1.274	0.915	0.004	0.562	0.384	0.09	2.27	2.38	0.356	6.49%
4/28/2022	0.000	1.251	0.935	0.004	0.561	0.383	-0.01	2.23	2.44	0.356	6.48%
4/29/2022	0.000	1.190	0.967	0.004	0.551	0.381	-0.05	2.16	2.54	0.356	6.48%
5/2/2022	0.000	1.087	0.990	0.004	0.542	0.381	0.01	2.00	2.60	0.354	6.49%
5/3/2022	0.000	1.101	0.975	0.004	0.541	0.380	0.06	2.04	2.57	0.355	6.47%
5/4/2022	0.000	1.104	0.971	0.004	0.541	0.383	0.07	2.04	2.54	0.355	6.47%
5/5/2022	0.000	1.030	0.992	0.004	0.535	0.383	-0.01	1.93	2.59	0.353	6.48%
5/6/2022	0.000	0.962	0.976	0.004	0.531	0.384	0.06	1.81	2.54	0.351	6.49%
5/9/2022	0.000	0.983	0.958	0.004	0.530	0.378	0.10	1.86	2.54	0.353	6.49%
5/10/2022	0.001	0.959	0.940	0.004	0.527	0.376	0.15	1.82	2.50	0.352	6.49%
5/11/2022	0.001	0.964	0.939	0.004	0.526	0.373	0.14	1.83	2.52	0.359	6.49%
5/12/2022	0.000	0.940	0.998	0.004	0.534	0.373	0.09	1.76	2.67	0.354	6.51%
5/13/2022	0.000	0.951	0.985	0.004	0.533	0.369	0.07	1.79	2.67	0.357	6.51%
5/16/2022	0.000	0.957	0.986	0.004	0.532	0.369	0.07	1.80	2.67	0.358	6.51%
5/17/2022	0.000	0.932	1.002	0.004	0.531	0.369	0.09	1.75	2.72	0.357	6.51%
5/18/2022	0.000	0.980	0.991	0.004	0.530	0.368	0.05	1.85	2.70	0.358	6.50%
5/19/2022	0.000	0.903	1.012	0.004	0.521	0.368	0.06	1.73	2.75	0.360	6.50%
5/20/2022	0.001	0.870	1.044	0.004	0.521	0.368	0.13	1.67	2.84	0.357	6.52%
5/23/2022	0.001	0.855	1.060	0.004	0.521	0.368	0.15	1.64	2.88	0.359	6.52%
5/24/2022	0.001	0.935	1.023	0.004	0.521	0.369	0.25	1.80	2.77	0.360	6.53%
5/25/2022	0.001	0.945	1.032	0.004	0.522	0.369	0.20	1.81	2.79	0.359	6.54%
5/26/2022	0.001	0.963	1.021	0.004	0.520	0.369	0.18	1.85	2.77	0.359	6.53%
5/27/2022	0.000	0.894	1.042	0.004	0.515	0.368	0.05	1.74	2.83	0.358	6.53%
5/31/2022	0.000	0.887	1.045	0.004	0.513	0.368	0.07	1.73	2.84	0.365	6.53%
6/1/2022	0.001	0.913	0.982	0.004	0.519	0.371	0.16	1.76	2.65	0.355	6.60%
6/2/2022	0.000	0.924	0.989	0.004	0.521	0.372	-0.01	1.77	2.66	0.348	6.63%
6/3/2022	0.000	0.931	0.985	0.004	0.516	0.371	-0.04	1.80	2.66	0.350	6.62%
6/6/2022	0.000	0.859	1.023	0.004	0.512	0.369	0.01	1.68	2.77	0.347	6.64%
6/7/2022	0.000	0.856	1.023	0.004	0.514	0.374	-0.03	1.66	2.73	0.346	6.64%
6/8/2022	0.000	0.855	1.021	0.004	0.514	0.372	-0.06	1.66	2.74	0.346	6.64%
6/9/2022	0.000	0.838	1.040	0.004	0.513	0.372	-0.02	1.64	2.79	0.350	6.63%
6/10/2022	0.000	0.837	1.059	0.004	0.513	0.372	-0.01	1.63	2.84	0.351	6.63%



## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
6/13/2022	0.000	0.687	1.101	0.004	0.508	0.371	-0.07	1.35	2.97	0.365	6.59%
6/14/2022	-0.001	0.841	1.099	0.004	0.506	0.374	-0.15	1.66	2.94	0.357	6.64%
6/15/2022	0.000	0.829	1.105	0.004	0.507	0.375	-0.05	1.63	2.94	0.356	6.66%
6/16/2022	0.000	0.840	1.128	0.004	0.504	0.373	-0.11	1.67	3.03	0.359	6.62%
6/17/2022	0.000	0.792	1.148	0.004	0.497	0.372	-0.05	1.59	3.08	0.359	6.62%
6/21/2022	0.000	0.824	1.121	0.004	0.495	0.365	-0.10	1.66	3.07	0.360	6.62%
6/22/2022	-0.001	0.782	1.117	0.004	0.494	0.366	-0.18	1.58	3.06	0.357	6.62%
6/23/2022	0.000	0.737	1.160	0.004	0.493	0.365	-0.09	1.49	3.18	0.350	6.63%
6/24/2022	0.000	0.732	1.168	0.004	0.492	0.360	-0.09	1.49	3.25	0.349	6.63%
6/27/2022	-0.001	0.680	1.178	0.004	0.486	0.360	-0.17	1.40	3.27	0.348	6.64%
6/28/2022	0.000	0.678	1.184	0.004	0.486	0.359	-0.11	1.40	3.30	0.349	6.63%
6/29/2022	-0.001	0.677	1.182	0.004	0.484	0.358	-0.19	1.40	3.30	0.350	6.61%
6/30/2022	-0.001	0.676	1.183	0.004	0.483	0.358	-0.16	1.40	3.31	0.352	6.61%
7/1/2022	-0.001	0.688	1.179	0.004	0.483	0.358	-0.22	1.42	3.30	0.352	6.61%
7/5/2022	-0.002	0.692	1.144	0.004	0.485	0.359	-0.34	1.43	3.19	0.346	6.64%
7/6/2022	-0.002	0.700	1.130	0.004	0.485	0.357	-0.39	1.44	3.16	0.348	6.64%
7/7/2022	-0.002	0.687	1.143	0.004	0.486	0.359	-0.52	1.41	3.19	0.345	6.65%
7/8/2022	-0.003	0.656	1.165	0.004	0.486	0.359	-0.60	1.35	3.25	0.346	6.64%
7/11/2022	-0.003	0.718	1.123	0.004	0.486	0.358	-0.71	1.48	3.13	0.349	6.61%
7/12/2022	-0.003	0.777	1.110	0.004	0.483	0.355	-0.60	1.61	3.12	0.355	6.56%
7/13/2022	-0.003	0.762	1.120	0.004	0.482	0.355	-0.64	1.58	3.16	0.355	6.56%
7/14/2022	-0.003	0.759	1.132	0.004	0.481	0.354	-0.69	1.58	3.19	0.357	6.54%
7/15/2022	-0.003	0.775	1.110	0.004	0.481	0.354	-0.62	1.61	3.14	0.357	6.54%
7/18/2022	-0.002	0.744	1.128	0.004	0.473	0.349	-0.48	1.57	3.23	0.364	6.45%
7/19/2022	-0.002	0.724	1.139	0.004	0.475	0.349	-0.42	1.53	3.26	0.365	6.45%
7/20/2022	-0.002	0.747	1.117	0.004	0.477	0.352	-0.47	1.57	3.17	0.365	6.45%
7/21/2022	-0.002	0.706	1.125	0.004	0.476	0.351	-0.56	1.48	3.21	0.365	6.43%
7/22/2022	-0.004	0.606	1.155	0.004	0.461	0.339	-0.87	1.32	3.41	0.379	6.22%
7/25/2022	-0.004	0.602	1.154	0.004	0.459	0.337	-0.95	1.31	3.42	0.382	6.20%
7/26/2022	-0.004	0.610	1.150	0.004	0.460	0.338	-0.98	1.32	3.40	0.379	6.21%
7/27/2022	-0.004	0.603	1.153	0.004	0.461	0.340	-0.96	1.31	3.40	0.386	6.22%
7/28/2022	-0.004	0.606	1.161	0.004	0.460	0.339	-1.05	1.32	3.42	0.390	6.21%
7/29/2022	-0.005	0.538	1.193	0.004	0.461	0.343	-1.18	1.17	3.48	0.381	6.24%
8/1/2022	-0.005	0.517	1.206	0.004	0.457	0.340	-1.21	1.13	3.54	0.359	6.23%
8/2/2022	-0.003	0.463	1.209	0.004	0.422	0.314	-0.76	1.10	3.86	0.399	5.75%
8/3/2022	-0.003	0.437	1.230	0.004	0.417	0.310	-0.84	1.05	3.97	0.402	5.70%
8/4/2022	-0.003	0.437	1.230	0.004	0.417	0.310	-0.84	1.05	3.97	0.402	5.70%
8/5/2022	-0.004	0.525	1.142	0.004	0.419	0.311	-0.99	1.25	3.68	0.394	5.74%
8/8/2022	-0.004	0.540	1.104	0.004	0.414	0.307	-1.14	1.30	3.59	0.400	5.68%
8/9/2022	-0.004	0.537	1.111	0.004	0.417	0.309	-1.00	1.29	3.59	0.395	5.71%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
8/10/2022	-0.004	0.594	1.044	0.004	0.419	0.312	-1.01	1.42	3.34	0.391	5.71%
8/11/2022	-0.004	0.548	1.071	0.004	0.419	0.313	-1.11	1.31	3.42	0.392	5.70%
8/12/2022	-0.004	0.515	1.101	0.004	0.422	0.317	-1.13	1.22	3.48	0.394	5.69%
8/15/2022	-0.005	0.538	1.080	0.004	0.418	0.315	-1.23	1.29	3.42	0.396	5.66%
8/16/2022	-0.005	0.550	1.063	0.004	0.418	0.314	-1.30	1.32	3.38	0.395	5.67%
8/17/2022	-0.005	0.569	1.045	0.004	0.418	0.314	-1.25	1.36	3.33	0.423	5.67%
8/18/2022	-0.004	0.439	1.154	0.004	0.418	0.315	-1.11	1.05	3.66	0.429	5.62%
8/19/2022	-0.004	0.465	1.139	0.004	0.417	0.314	-1.10	1.11	3.62	0.428	5.62%
8/22/2022	-0.004	0.477	1.130	0.004	0.418	0.317	-1.10	1.14	3.57	0.428	5.62%
8/23/2022	-0.004	0.484	1.127	0.004	0.416	0.317	-1.12	1.16	3.55	0.429	5.62%
8/24/2022	-0.004	0.510	1.081	0.004	0.416	0.319	-1.17	1.23	3.39	0.430	5.61%
8/25/2022	-0.004	0.487	1.111	0.004	0.418	0.320	-1.09	1.17	3.48	0.426	5.63%
8/26/2022	-0.004	0.472	1.119	0.004	0.415	0.318	-1.12	1.14	3.52	0.370	5.62%
8/29/2022	-0.003	0.361	1.111	0.004	0.414	0.319	-0.84	0.87	3.49	0.367	5.63%
8/30/2022	-0.004	0.378	1.110	0.004	0.416	0.321	-0.97	0.91	3.46	0.340	5.66%
8/31/2022	-0.004	0.371	1.111	0.004	0.415	0.320	-0.95	0.89	3.47	0.338	5.65%
9/1/2022	-0.004	0.372	1.110	0.004	0.414	0.319	-0.95	0.90	3.48	0.338	5.64%
9/2/2022	-0.003	0.377	1.112	0.004	0.410	0.316	-0.89	0.92	3.52	0.342	5.61%
9/6/2022	-0.003	0.380	1.106	0.004	0.410	0.315	-0.93	0.93	3.51	0.349	5.61%
9/7/2022	-0.003	0.417	1.054	0.004	0.414	0.318	-0.77	1.01	3.31	0.333	5.67%
9/8/2022	-0.003	0.418	1.058	0.004	0.413	0.317	-0.76	1.01	3.34	0.335	5.66%
9/9/2022	-0.003	0.433	1.038	0.004	0.412	0.314	-0.77	1.05	3.31	0.341	5.66%
9/12/2022	-0.003	0.504	1.007	0.004	0.412	0.315	-0.74	1.22	3.20	0.335	5.67%
9/13/2022	-0.003	0.513	1.003	0.004	0.411	0.314	-0.77	1.25	3.19	0.338	5.67%
9/14/2022	-0.003	0.515	1.003	0.004	0.407	0.314	-0.77	1.26	3.20	0.339	5.66%
9/15/2022	-0.003	0.512	1.011	0.004	0.407	0.313	-0.72	1.26	3.23	0.334	5.65%
9/16/2022	-0.003	0.525	0.996	0.004	0.405	0.312	-0.80	1.30	3.19	0.333	5.65%
9/19/2022	-0.003	0.525	0.996	0.004	0.405	0.313	-0.80	1.30	3.19	0.334	5.65%
9/20/2022	-0.003	0.563	0.968	0.004	0.402	0.310	-0.94	1.40	3.12	0.370	5.62%
9/21/2022	-0.002	0.463	1.013	0.004	0.421	0.325	-0.64	1.10	3.12	0.310	5.88%
9/22/2022	-0.003	0.484	0.988	0.004	0.419	0.324	-0.74	1.15	3.05	0.360	5.86%
9/23/2022	-0.002	0.347	1.052	0.004	0.443	0.343	-0.38	0.78	3.07	0.304	6.20%
9/26/2022	-0.002	0.448	1.024	0.004	0.449	0.348	-0.54	1.00	2.94	0.274	6.30%
9/27/2022	-0.002	0.412	1.034	0.004	0.453	0.351	-0.48	0.91	2.94	0.267	6.33%
9/28/2022	-0.002	0.410	1.036	0.004	0.451	0.349	-0.48	0.91	2.97	0.266	6.32%
9/29/2022	-0.002	0.423	0.969	0.004	0.453	0.349	-0.59	0.93	2.78	0.258	6.35%
9/30/2022	-0.002	0.422	0.966	0.004	0.452	0.349	-0.54	0.94	2.77	0.258	6.35%
10/3/2022	-0.002	0.436	0.958	0.004	0.452	0.349	-0.56	0.96	2.74	0.258	6.35%
10/4/2022	-0.002	0.424	0.954	0.004	0.454	0.353	-0.58	0.93	2.70	0.257	6.35%
10/5/2022	-0.003	0.401	0.956	0.004	0.450	0.352	-0.62	0.89	2.71	0.254	6.34%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
10/6/2022	-0.003	0.384	0.964	0.004	0.451	0.352	-0.68	0.85	2.74	0.255	6.34%
10/7/2022	-0.003	0.370	0.970	0.004	0.450	0.352	-0.64	0.82	2.76	0.254	6.33%
10/10/2022	-0.003	0.381	0.968	0.004	0.449	0.352	-0.66	0.85	2.75	0.259	6.33%
10/11/2022	-0.003	0.399	0.962	0.004	0.450	0.353	-0.72	0.89	2.72	0.253	6.36%
10/12/2022	-0.003	0.407	0.956	0.004	0.450	0.352	-0.73	0.90	2.71	0.253	6.36%
10/13/2022	-0.003	0.406	0.957	0.004	0.449	0.352	-0.74	0.90	2.72	0.254	6.36%
10/14/2022	-0.003	0.407	0.956	0.004	0.447	0.351	-0.79	0.91	2.72	0.254	6.35%
10/17/2022	-0.003	0.417	0.956	0.004	0.445	0.351	-0.73	0.94	2.72	0.255	6.34%
10/18/2022	-0.003	0.415	0.940	0.004	0.444	0.351	-0.72	0.94	2.68	0.254	6.33%
10/19/2022	-0.003	0.384	0.961	0.004	0.444	0.352	-0.77	0.87	2.73	0.255	6.34%
10/20/2022	-0.003	0.380	0.978	0.004	0.441	0.348	-0.71	0.86	2.81	0.257	6.32%
10/21/2022	-0.003	0.378	0.977	0.004	0.441	0.348	-0.65	0.86	2.81	0.257	6.32%
10/24/2022	-0.003	0.378	0.977	0.004	0.441	0.348	-0.66	0.86	2.80	0.257	6.32%
10/25/2022	-0.003	0.372	0.975	0.004	0.441	0.349	-0.68	0.84	2.80	0.256	6.33%
10/26/2022	-0.003	0.368	0.975	0.004	0.439	0.348	-0.70	0.84	2.80	0.259	6.32%
10/27/2022	-0.003	0.353	0.989	0.004	0.438	0.346	-0.66	0.81	2.86	0.258	6.32%
10/28/2022	-0.003	0.357	0.981	0.004	0.437	0.346	-0.63	0.82	2.84	0.259	6.31%
10/31/2022	-0.002	0.356	0.992	0.004	0.437	0.344	-0.59	0.81	2.88	0.260	6.31%
11/1/2022	-0.002	0.360	0.989	0.004	0.437	0.344	-0.57	0.82	2.87	0.260	6.31%
11/2/2022	-0.003	0.374	0.969	0.004	0.436	0.344	-0.63	0.86	2.82	0.259	6.31%
11/3/2022	-0.003	0.378	0.939	0.004	0.422	0.334	-0.87	0.90	2.81	0.270	6.13%
11/4/2022	-0.003	0.390	0.938	0.004	0.421	0.334	-0.87	0.93	2.81	0.270	6.13%
11/7/2022	-0.003	0.405	0.930	0.004	0.419	0.333	-0.84	0.97	2.79	0.175	6.12%
11/8/2022	-0.004	0.294	1.026	0.004	0.421	0.336	-1.01	0.70	3.05	0.179	6.10%
11/9/2022	-0.004	0.296	1.028	0.004	0.421	0.336	-0.98	0.70	3.06	0.179	6.10%
11/10/2022	-0.003	0.311	1.002	0.004	0.417	0.334	-0.84	0.75	3.00	0.180	6.05%
11/11/2022	-0.003	0.253	1.009	0.004	0.405	0.331	-0.79	0.62	3.05	0.182	6.02%
11/14/2022	-0.003	0.276	0.997	0.004	0.405	0.331	-0.76	0.68	3.01	0.184	6.03%
11/15/2022	-0.002	0.251	1.017	0.004	0.405	0.331	-0.61	0.62	3.07	0.177	6.05%
11/16/2022	-0.002	0.257	1.007	0.004	0.402	0.329	-0.52	0.64	3.06	0.192	6.00%
11/17/2022	-0.003	0.273	1.009	0.004	0.405	0.332	-0.66	0.67	3.04	0.178	6.06%
11/18/2022	-0.002	0.233	1.033	0.004	0.389	0.318	-0.41	0.60	3.25	0.192	5.81%
11/21/2022	-0.002	0.231	1.032	0.004	0.388	0.318	-0.45	0.60	3.25	0.194	5.81%
11/22/2022	-0.002	0.254	1.013	0.004	0.387	0.317	-0.58	0.66	3.20	0.195	5.78%
11/23/2022	-0.002	0.255	1.012	0.004	0.386	0.317	-0.57	0.66	3.20	0.195	5.78%
11/25/2022	-0.002	0.267	1.003	0.004	0.386	0.316	-0.54	0.69	3.17	0.196	5.78%
11/28/2022	-0.002	0.258	1.007	0.004	0.384	0.315	-0.61	0.67	3.20	0.196	5.75%
11/29/2022	-0.002	0.238	1.023	0.004	0.388	0.318	-0.60	0.61	3.22	0.196	5.75%
11/30/2022	-0.002	0.249	1.017	0.004	0.389	0.318	-0.55	0.64	3.20	0.197	5.75%
12/1/2022	-0.002	0.235	1.016	0.004	0.390	0.318	-0.57	0.60	3.19	0.196	5.75%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
12/2/2022	-0.002	0.235	0.998	0.004	0.389	0.318	-0.53	0.61	3.14	0.195	5.74%
12/5/2022	-0.002	0.230	1.008	0.004	0.390	0.318	-0.47	0.59	3.17	0.197	5.75%
12/6/2022	-0.002	0.245	1.002	0.004	0.390	0.319	-0.48	0.63	3.14	0.194	5.75%
12/7/2022	-0.002	0.271	0.977	0.004	0.395	0.322	-0.43	0.69	3.03	0.201	5.75%
12/8/2022	-0.001	0.243	0.989	0.004	0.396	0.325	-0.37	0.61	3.05	0.191	5.77%
12/9/2022	-0.001	0.250	0.984	0.004	0.396	0.325	-0.37	0.63	3.03	0.189	5.77%
12/12/2022	-0.001	0.271	0.948	0.004	0.395	0.324	-0.27	0.68	2.92	0.190	5.77%
12/13/2022	-0.001	0.309	0.926	0.004	0.397	0.327	-0.18	0.78	2.84	0.189	5.78%
12/14/2022	-0.001	0.315	0.927	0.004	0.401	0.329	-0.15	0.79	2.82	0.187	5.78%
12/15/2022	-0.001	0.326	0.921	0.004	0.400	0.328	-0.19	0.82	2.81	0.197	5.77%
12/16/2022	-0.001	0.376	0.921	0.004	0.399	0.329	-0.21	0.94	2.80	0.193	5.79%
12/19/2022	-0.001	0.375	0.919	0.004	0.399	0.329	-0.20	0.94	2.79	0.193	5.78%
12/20/2022	-0.001	0.340	0.953	0.004	0.404	0.334	-0.17	0.84	2.86	0.194	5.78%
12/21/2022	0.000	0.303	0.959	0.004	0.398	0.329	-0.03	0.76	2.92	0.195	5.70%
12/22/2022	0.000	0.291	0.961	0.004	0.397	0.328	-0.08	0.73	2.93	0.185	5.70%
12/23/2022	-0.001	0.353	0.920	0.004	0.400	0.330	-0.19	0.88	2.78	0.176	5.73%
12/27/2022	-0.001	0.326	0.943	0.004	0.398	0.328	-0.23	0.82	2.87	0.188	5.74%
12/28/2022	-0.002	0.196	1.068	0.004	0.403	0.332	-0.43	0.49	3.22	0.179	5.76%
12/29/2022	-0.001	0.211	1.055	0.004	0.402	0.331	-0.40	0.53	3.19	0.180	5.76%
12/30/2022	-0.001	0.212	1.060	0.004	0.401	0.331	-0.35	0.53	3.21	0.181	5.76%
1/3/2023	-0.001	0.212	1.060	0.004	0.401	0.331	-0.35	0.53	3.20	0.183	5.76%
1/4/2023	-0.001	0.205	1.070	0.004	0.402	0.331	-0.40	0.51	3.23	0.185	5.76%
1/5/2023	-0.002	0.205	1.072	0.004	0.401	0.331	-0.43	0.51	3.24	0.182	5.75%
1/6/2023	-0.002	0.171	1.105	0.004	0.401	0.333	-0.45	0.43	3.32	0.183	5.75%
1/9/2023	-0.002	0.126	1.167	0.004	0.399	0.333	-0.59	0.32	3.50	0.187	5.73%
1/10/2023	-0.002	0.159	1.133	0.004	0.396	0.330	-0.54	0.40	3.43	0.191	5.74%
1/11/2023	-0.002	0.148	1.154	0.004	0.397	0.330	-0.46	0.37	3.49	0.201	5.75%
1/12/2023	-0.001	0.208	1.121	0.004	0.400	0.334	-0.30	0.52	3.36	0.186	5.81%
1/13/2023	-0.001	0.208	1.111	0.004	0.401	0.334	-0.37	0.52	3.33	0.183	5.81%
1/17/2023	-0.001	0.212	1.106	0.004	0.402	0.336	-0.37	0.53	3.29	0.183	5.81%
1/18/2023	-0.001	0.214	1.097	0.004	0.402	0.336	-0.32	0.53	3.26	0.181	5.81%
1/19/2023	-0.001	0.212	1.099	0.004	0.402	0.336	-0.31	0.53	3.27	0.182	5.81%
1/20/2023	-0.001	0.228	1.069	0.004	0.402	0.338	-0.28	0.57	3.16	0.179	5.80%
1/23/2023	-0.001	0.251	1.058	0.004	0.401	0.338	-0.23	0.63	3.13	0.179	5.81%
1/24/2023	0.000	0.255	1.046	0.004	0.399	0.337	-0.10	0.64	3.10	0.213	5.79%
1/25/2023	0.000	0.250	1.047	0.004	0.401	0.338	-0.09	0.62	3.10	0.213	5.80%
1/26/2023	-0.001	0.251	1.039	0.004	0.401	0.338	-0.24	0.63	3.07	0.208	5.80%
1/27/2023	-0.001	0.261	1.040	0.004	0.399	0.337	-0.27	0.65	3.08	0.211	5.80%
1/30/2023	-0.001	0.269	1.034	0.004	0.400	0.338	-0.22	0.67	3.06	0.212	5.80%
1/31/2023	-0.001	0.278	1.032	0.004	0.400	0.339	-0.24	0.69	3.05	0.210	5.81%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
2/1/2023	-0.001	0.281	1.030	0.004	0.400	0.339	-0.23	0.70	3.04	0.209	5.81%
2/2/2023	-0.001	0.290	1.005	0.004	0.398	0.338	-0.25	0.73	2.97	0.211	5.80%
2/3/2023	-0.001	0.349	0.961	0.004	0.398	0.339	-0.18	0.88	2.83	0.204	5.83%
2/6/2023	-0.001	0.350	0.962	0.004	0.399	0.341	-0.20	0.88	2.82	0.205	5.83%
2/7/2023	-0.001	0.362	0.961	0.004	0.400	0.341	-0.25	0.91	2.82	0.204	5.83%
2/8/2023	-0.001	0.351	0.966	0.004	0.398	0.340	-0.31	0.88	2.84	0.204	5.82%
2/9/2023	-0.001	0.347	0.965	0.004	0.399	0.340	-0.26	0.87	2.84	0.205	5.82%
2/10/2023	-0.001	0.355	0.961	0.004	0.399	0.340	-0.28	0.89	2.83	0.204	5.82%
2/13/2023	-0.001	0.356	0.955	0.004	0.399	0.340	-0.32	0.89	2.80	0.204	5.82%
2/14/2023	-0.002	0.341	0.994	0.004	0.396	0.339	-0.52	0.86	2.93	0.209	5.79%
2/15/2023	-0.002	0.339	0.996	0.004	0.396	0.338	-0.55	0.86	2.95	0.211	5.78%
2/16/2023	-0.002	0.353	0.980	0.004	0.396	0.339	-0.50	0.89	2.89	0.210	5.77%
2/17/2023	-0.002	0.350	0.984	0.004	0.396	0.340	-0.46	0.88	2.90	0.210	5.77%
2/21/2023	-0.002	0.343	0.992	0.004	0.395	0.339	-0.44	0.87	2.93	0.213	5.78%
2/22/2023	-0.002	0.345	0.990	0.004	0.395	0.339	-0.44	0.87	2.92	0.210	5.78%
2/23/2023	-0.002	0.345	0.993	0.004	0.395	0.339	-0.46	0.87	2.93	0.210	5.78%
2/24/2023	-0.001	0.324	1.001	0.004	0.393	0.337	-0.37	0.82	2.97	0.211	5.76%
2/27/2023	-0.001	0.316	0.993	0.004	0.393	0.336	-0.31	0.80	2.95	0.209	5.75%
2/28/2023	-0.001	0.309	0.980	0.004	0.392	0.336	-0.39	0.79	2.92	0.207	5.74%
3/1/2023	-0.001	0.315	0.978	0.004	0.393	0.336	-0.39	0.80	2.91	0.207	5.74%
3/2/2023	-0.001	0.310	0.982	0.004	0.393	0.336	-0.38	0.79	2.93	0.207	5.74%
3/3/2023	-0.001	0.295	0.989	0.004	0.393	0.335	-0.32	0.75	2.95	0.208	5.73%
3/6/2023	-0.001	0.302	0.989	0.004	0.395	0.336	-0.29	0.77	2.94	0.207	5.73%
3/7/2023	-0.001	0.314	0.966	0.004	0.393	0.335	-0.21	0.80	2.88	0.207	5.72%
3/8/2023	-0.001	0.321	0.968	0.004	0.393	0.335	-0.26	0.82	2.89	0.207	5.72%
3/9/2023	-0.001	0.267	0.997	0.004	0.396	0.335	-0.21	0.67	2.97	0.206	5.71%
3/10/2023	-0.001	0.265	0.991	0.004	0.396	0.336	-0.20	0.67	2.95	0.205	5.71%
3/13/2023	-0.001	0.254	0.987	0.004	0.396	0.336	-0.20	0.64	2.94	0.204	5.71%
3/14/2023	-0.001	0.248	0.995	0.004	0.392	0.331	-0.22	0.63	3.00	0.204	5.71%
3/15/2023	-0.001	0.247	0.992	0.004	0.392	0.331	-0.20	0.63	3.00	0.203	5.71%
3/16/2023	0.000	0.233	0.988	0.004	0.390	0.330	-0.10	0.60	3.00	0.204	5.68%
3/17/2023	0.000	0.227	0.987	0.004	0.389	0.329	-0.12	0.58	3.00	0.203	5.68%
3/20/2023	-0.001	0.225	0.976	0.004	0.389	0.330	-0.14	0.58	2.96	0.200	5.67%
3/21/2023	-0.001	0.223	0.965	0.004	0.389	0.330	-0.20	0.57	2.92	0.198	5.67%
3/22/2023	-0.001	0.213	0.976	0.004	0.387	0.329	-0.20	0.55	2.97	0.203	5.67%
3/23/2023	-0.001	0.223	0.984	0.004	0.388	0.330	-0.25	0.57	2.98	0.200	5.68%
3/24/2023	-0.001	0.225	0.981	0.004	0.387	0.330	-0.25	0.58	2.97	0.199	5.68%
3/27/2023	-0.001	0.219	1.001	0.004	0.387	0.330	-0.31	0.57	3.03	0.201	5.67%
3/28/2023	-0.001	0.217	1.001	0.004	0.387	0.330	-0.32	0.56	3.03	0.201	5.67%
3/29/2023	-0.001	0.214	1.004	0.004	0.389	0.332	-0.36	0.55	3.02	0.201	5.68%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
3/30/2023	-0.001	0.216	1.004	0.004	0.389	0.332	-0.34	0.56	3.02	0.201	5.67%
3/31/2023	-0.001	0.220	1.011	0.004	0.388	0.332	-0.29	0.57	3.04	0.202	5.67%
4/3/2023	-0.001	0.218	1.008	0.004	0.387	0.332	-0.29	0.56	3.03	0.202	5.67%
4/4/2023	-0.001	0.202	1.016	0.004	0.388	0.333	-0.27	0.52	3.05	0.201	5.67%
4/5/2023	-0.001	0.198	1.022	0.004	0.389	0.335	-0.25	0.51	3.05	0.201	5.67%
4/6/2023	-0.001	0.202	1.019	0.004	0.389	0.334	-0.26	0.52	3.05	0.201	5.67%
4/10/2023	0.000	0.173	0.995	0.004	0.380	0.327	-0.07	0.46	3.05	0.205	5.55%
4/11/2023	0.000	0.121	1.035	0.004	0.381	0.326	-0.04	0.32	3.17	0.205	5.54%
4/12/2023	0.000	0.115	1.046	0.004	0.380	0.326	0.04	0.30	3.21	0.206	5.53%
4/13/2023	0.000	0.115	1.045	0.004	0.380	0.326	0.05	0.30	3.21	0.207	5.53%
4/14/2023	0.000	0.115	1.043	0.004	0.380	0.326	0.07	0.30	3.20	0.206	5.52%
4/17/2023	0.000	0.115	1.043	0.004	0.380	0.326	0.06	0.30	3.20	0.208	5.52%
4/18/2023	0.000	0.111	1.049	0.004	0.380	0.327	0.10	0.29	3.21	0.205	5.53%
4/19/2023	0.000	0.109	1.048	0.004	0.380	0.327	0.12	0.29	3.21	0.205	5.53%
4/20/2023	0.000	0.118	1.037	0.004	0.383	0.331	0.11	0.31	3.13	0.205	5.53%
4/21/2023	0.001	0.193	1.007	0.003	0.379	0.327	0.24	0.51	3.08	0.211	5.46%
4/24/2023	0.001	0.183	1.016	0.003	0.376	0.324	0.36	0.49	3.13	0.215	5.43%
4/25/2023	0.001	0.175	0.998	0.003	0.375	0.324	0.42	0.47	3.08	0.213	5.41%
4/26/2023	0.001	0.216	0.994	0.003	0.375	0.323	0.32	0.58	3.08	0.215	5.40%
4/27/2023	0.001	0.226	0.975	0.003	0.374	0.322	0.26	0.60	3.03	0.216	5.39%
4/28/2023	0.001	0.273	1.004	0.003	0.370	0.320	0.18	0.74	3.14	0.224	5.35%
5/1/2023	0.001	0.282	0.999	0.003	0.370	0.320	0.24	0.76	3.12	0.224	5.35%
5/2/2023	0.001	0.295	0.988	0.003	0.375	0.323	0.24	0.79	3.06	0.226	5.35%
5/3/2023	0.001	0.327	0.985	0.003	0.378	0.323	0.17	0.86	3.05	0.226	5.35%
5/4/2023	0.001	0.324	0.992	0.003	0.377	0.322	0.20	0.86	3.08	0.226	5.35%
5/5/2023	0.001	0.321	0.994	0.003	0.377	0.322	0.20	0.85	3.08	0.226	5.35%
5/8/2023	0.001	0.338	0.985	0.003	0.379	0.323	0.21	0.89	3.05	0.227	5.35%
5/9/2023	0.001	0.368	0.985	0.003	0.379	0.322	0.21	0.97	3.06	0.244	5.35%
5/10/2023	0.001	0.323	1.026	0.003	0.387	0.333	0.35	0.83	3.08	0.222	5.42%
5/11/2023	0.001	0.324	1.026	0.003	0.388	0.336	0.36	0.83	3.05	0.219	5.42%
5/12/2023	0.001	0.335	1.009	0.003	0.390	0.340	0.40	0.86	2.97	0.218	5.43%
5/15/2023	0.002	0.369	0.933	0.003	0.389	0.342	0.47	0.95	2.73	0.211	5.41%
5/16/2023	0.002	0.361	0.940	0.003	0.392	0.346	0.46	0.92	2.71	0.212	5.41%
5/17/2023	0.001	0.338	0.938	0.003	0.391	0.344	0.38	0.86	2.73	0.208	5.40%
5/18/2023	0.001	0.367	0.911	0.003	0.389	0.343	0.29	0.94	2.66	0.209	5.38%
5/19/2023	0.001	0.349	0.901	0.003	0.387	0.343	0.20	0.90	2.63	0.205	5.37%
5/22/2023	0.000	0.380	0.889	0.003	0.391	0.342	0.15	0.97	2.60	0.206	5.37%
5/23/2023	0.000	0.411	0.858	0.003	0.391	0.343	0.11	1.05	2.50	0.205	5.36%
5/24/2023	0.000	0.419	0.847	0.003	0.389	0.342	0.07	1.08	2.48	0.205	5.35%
5/25/2023	0.000	0.376	0.866	0.003	0.390	0.341	0.01	0.96	2.54	0.205	5.34%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
5/26/2023	0.000	0.355	0.869	0.003	0.385	0.336	0.06	0.92	2.58	0.204	5.32%
5/30/2023	0.000	0.313	0.891	0.003	0.384	0.335	-0.04	0.82	2.66	0.204	5.32%
5/31/2023	0.000	0.348	0.877	0.003	0.386	0.335	-0.01	0.90	2.61	0.205	5.31%
6/1/2023	0.000	0.349	0.871	0.003	0.385	0.335	-0.04	0.90	2.60	0.203	5.31%
6/2/2023	-0.001	0.279	0.979	0.003	0.379	0.331	-0.25	0.74	2.96	0.216	5.22%
6/5/2023	0.000	0.281	0.957	0.003	0.375	0.328	-0.10	0.75	2.92	0.217	5.17%
6/6/2023	0.000	0.274	0.960	0.003	0.378	0.329	-0.14	0.72	2.92	0.217	5.17%
6/7/2023	-0.001	0.336	0.915	0.003	0.380	0.330	-0.18	0.88	2.77	0.218	5.16%
6/8/2023	0.000	0.354	0.894	0.003	0.382	0.333	-0.10	0.93	2.68	0.216	5.16%
6/9/2023	0.000	0.357	0.891	0.003	0.383	0.335	-0.08	0.93	2.66	0.215	5.17%
6/12/2023	0.000	0.340	0.905	0.003	0.384	0.336	-0.06	0.88	2.69	0.216	5.16%
6/13/2023	0.000	0.343	0.876	0.003	0.384	0.338	-0.01	0.89	2.59	0.213	5.16%
6/14/2023	0.000	0.387	0.907	0.003	0.382	0.336	-0.10	1.01	2.70	0.220	5.13%
6/15/2023	0.000	0.255	0.866	0.003	0.377	0.329	0.12	0.68	2.63	0.210	5.03%
6/16/2023	0.000	0.271	0.847	0.003	0.376	0.328	-0.01	0.72	2.58	0.211	5.01%
6/20/2023	0.000	0.272	0.819	0.003	0.375	0.328	-0.10	0.73	2.50	0.208	4.99%
6/21/2023	0.000	0.277	0.817	0.003	0.379	0.328	-0.09	0.73	2.49	0.208	4.99%
6/22/2023	0.000	0.270	0.822	0.003	0.384	0.338	-0.05	0.70	2.44	0.207	4.99%
6/23/2023	0.000	0.294	0.831	0.003	0.384	0.337	0.02	0.77	2.47	0.210	4.98%
6/26/2023	0.000	0.355	0.769	0.003	0.383	0.336	-0.10	0.93	2.29	0.213	4.95%
6/27/2023	-0.001	0.369	0.749	0.003	0.386	0.343	-0.19	0.96	2.18	0.208	4.95%
6/28/2023	0.000	0.420	0.722	0.003	0.385	0.340	-0.14	1.09	2.12	0.209	4.95%
6/29/2023	-0.001	0.423	0.719	0.003	0.385	0.340	-0.17	1.10	2.11	0.209	4.95%
6/30/2023	0.000	0.421	0.711	0.003	0.385	0.340	-0.14	1.09	2.09	0.209	4.95%
7/3/2023	0.000	0.432	0.707	0.003	0.385	0.341	-0.12	1.12	2.08	0.209	4.95%
7/5/2023	0.000	0.428	0.698	0.003	0.385	0.340	-0.02	1.11	2.05	0.224	4.95%
7/6/2023	0.000	0.457	0.708	0.003	0.388	0.344	-0.09	1.18	2.06	0.208	4.99%
7/7/2023	0.000	0.436	0.717	0.003	0.390	0.348	0.00	1.12	2.06	0.206	5.00%
7/10/2023	0.000	0.422	0.736	0.003	0.388	0.346	0.08	1.09	2.13	0.208	4.98%
7/11/2023	0.000	0.437	0.715	0.003	0.388	0.345	0.04	1.13	2.07	0.206	4.98%
7/12/2023	0.000	0.433	0.720	0.003	0.387	0.345	0.08	1.12	2.09	0.207	4.98%
7/13/2023	0.000	0.430	0.707	0.003	0.387	0.345	0.11	1.11	2.05	0.205	4.97%
7/14/2023	0.000	0.426	0.709	0.003	0.387	0.345	0.09	1.10	2.05	0.205	4.97%
7/17/2023	0.000	0.431	0.706	0.003	0.387	0.345	0.06	1.11	2.04	0.205	4.97%
7/18/2023	0.000	0.427	0.714	0.003	0.388	0.346	0.05	1.10	2.06	0.206	4.97%
7/19/2023	0.000	0.415	0.716	0.003	0.388	0.347	0.00	1.07	2.07	0.204	4.98%
7/20/2023	0.000	0.413	0.719	0.003	0.389	0.350	0.00	1.06	2.06	0.204	4.98%
7/21/2023	0.000	0.410	0.719	0.003	0.390	0.350	0.00	1.05	2.05	0.203	4.98%
7/24/2023	0.000	0.412	0.718	0.003	0.390	0.350	0.01	1.06	2.05	0.205	4.98%
7/25/2023	0.000	0.397	0.741	0.003	0.389	0.348	0.00	1.02	2.13	0.204	4.98%

## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
7/26/2023	0.000	0.394	0.742	0.003	0.389	0.349	-0.02	1.01	2.12	0.203	4.98%
7/27/2023	0.000	0.391	0.750	0.003	0.388	0.348	0.06	1.01	2.16	0.205	4.96%
7/28/2023	0.000	0.392	0.746	0.003	0.389	0.349	0.08	1.01	2.14	0.205	4.96%
7/31/2023	0.000	0.391	0.752	0.003	0.389	0.348	0.09	1.01	2.16	0.190	4.95%
8/1/2023	0.001	0.504	0.663	0.003	0.388	0.347	0.28	1.30	1.91	0.191	4.92%
8/2/2023	0.001	0.538	0.636	0.003	0.392	0.349	0.31	1.37	1.82	0.193	4.91%
8/3/2023	0.000	0.497	0.707	0.003	0.388	0.348	0.16	1.28	2.03	0.198	4.87%
8/4/2023	0.000	0.545	0.664	0.003	0.387	0.347	0.05	1.41	1.91	0.201	4.85%
8/7/2023	0.000	0.562	0.649	0.003	0.387	0.346	0.00	1.46	1.87	0.204	4.84%
8/8/2023	0.000	0.425	0.800	0.003	0.387	0.349	0.05	1.10	2.29	0.205	4.82%
8/9/2023	0.000	0.437	0.788	0.003	0.387	0.350	0.03	1.13	2.25	0.204	4.82%
8/10/2023	0.000	0.470	0.747	0.003	0.384	0.348	-0.10	1.22	2.15	0.206	4.79%
8/11/2023	-0.001	0.457	0.775	0.003	0.383	0.348	-0.20	1.19	2.23	0.207	4.79%
8/14/2023	-0.001	0.474	0.777	0.003	0.384	0.348	-0.19	1.23	2.23	0.208	4.78%
8/15/2023	-0.001	0.473	0.780	0.003	0.385	0.350	-0.18	1.23	2.23	0.210	4.78%
8/16/2023	-0.001	0.486	0.769	0.003	0.384	0.350	-0.25	1.26	2.20	0.208	4.79%
8/17/2023	-0.001	0.465	0.801	0.003	0.385	0.351	-0.21	1.21	2.28	0.210	4.78%
8/18/2023	-0.001	0.446	0.816	0.003	0.386	0.353	-0.19	1.15	2.31	0.209	4.78%
8/21/2023	-0.001	0.445	0.816	0.003	0.385	0.353	-0.21	1.16	2.31	0.137	4.78%
8/22/2023	-0.001	0.430	0.824	0.003	0.387	0.353	-0.31	1.11	2.33	0.137	4.78%
8/23/2023	-0.001	0.416	0.831	0.003	0.388	0.354	-0.25	1.07	2.35	0.136	4.78%
8/24/2023	-0.001	0.405	0.831	0.003	0.388	0.353	-0.22	1.04	2.35	0.138	4.78%
8/25/2023	-0.001	0.379	0.830	0.003	0.389	0.354	-0.17	0.97	2.34	0.131	4.79%
8/28/2023	-0.001	0.405	0.785	0.003	0.387	0.354	-0.29	1.05	2.22	0.133	4.77%
8/29/2023	-0.001	0.437	0.770	0.003	0.390	0.355	-0.19	1.12	2.17	0.140	4.77%
8/30/2023	-0.001	0.553	0.812	0.003	0.387	0.353	-0.27	1.43	2.30	0.147	4.73%
8/31/2023	0.000	0.537	0.803	0.003	0.382	0.349	-0.09	1.40	2.31	0.149	4.68%
9/1/2023	0.000	0.537	0.814	0.003	0.383	0.348	-0.15	1.40	2.34	0.148	4.68%
9/5/2023	0.000	0.535	0.815	0.003	0.384	0.348	-0.15	1.39	2.34	0.148	4.68%
9/6/2023	0.000	0.503	0.848	0.003	0.386	0.351	-0.08	1.31	2.42	0.150	4.67%
9/7/2023	0.000	0.507	0.843	0.003	0.385	0.352	-0.08	1.32	2.40	0.150	4.67%
9/8/2023	-0.001	0.444	0.945	0.003	0.380	0.348	-0.22	1.17	2.72	0.159	4.60%
9/11/2023	-0.001	0.446	0.934	0.003	0.380	0.350	-0.24	1.17	2.67	0.157	4.60%
9/12/2023	-0.001	0.419	0.966	0.003	0.383	0.357	-0.25	1.10	2.71	0.162	4.60%
9/13/2023	-0.001	0.382	0.969	0.003	0.382	0.356	-0.47	1.00	2.72	0.153	4.59%
9/14/2023	-0.001	0.382	0.966	0.003	0.383	0.356	-0.46	1.00	2.71	0.152	4.59%
9/15/2023	-0.001	0.373	0.960	0.003	0.385	0.357	-0.44	0.97	2.69	0.147	4.59%
9/18/2023	-0.001	0.382	0.943	0.003	0.384	0.357	-0.50	0.99	2.65	0.151	4.58%
9/19/2023	-0.001	0.329	0.996	0.003	0.386	0.357	-0.51	0.85	2.79	0.147	4.58%
9/20/2023	-0.002	0.332	0.993	0.003	0.386	0.357	-0.52	0.86	2.78	0.147	4.58%



## Exhibit-23

## Cassava Synthetic Stock Regression Results

Collective Event Study on Top News Article Count Dates

Event Date	Coefficients			Standard Error			t -statistic			Regression Statistics	
	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Intercept	Market Index	Sector Index	Adjusted R <sup>2</sup>	Standard Error
9/21/2023	-0.001	0.343	0.974	0.003	0.388	0.359	-0.46	0.88	2.71	0.148	4.59%
9/22/2023	-0.003	0.507	0.928	0.003	0.360	0.334	-0.95	1.41	2.78	0.177	4.27%
9/25/2023	-0.003	0.507	0.926	0.003	0.360	0.336	-0.94	1.41	2.76	0.175	4.27%
9/26/2023	-0.004	0.707	0.841	0.002	0.317	0.294	-1.63	2.23	2.86	0.233	3.74%
9/27/2023	-0.003	0.624	0.814	0.002	0.299	0.278	-1.43	2.08	2.93	0.233	3.57%
9/28/2023	-0.004	0.631	0.863	0.002	0.294	0.273	-1.67	2.15	3.16	0.247	3.51%
9/29/2023	-0.004	0.638	0.855	0.002	0.295	0.275	-1.69	2.16	3.11	0.247	3.51%
10/2/2023	-0.003	0.586	1.018	0.002	0.290	0.277	-1.54	2.02	3.68	0.267	3.45%
10/3/2023	-0.003	0.607	1.003	0.002	0.291	0.276	-1.53	2.08	3.64	0.271	3.45%
10/4/2023	-0.003	0.548	1.019	0.002	0.294	0.278	-1.35	1.87	3.66	0.267	3.48%
10/5/2023	-0.003	0.608	1.007	0.002	0.297	0.279	-1.17	2.04	3.61	0.262	3.49%
10/6/2023	-0.003	0.657	1.003	0.002	0.297	0.277	-1.15	2.21	3.62	0.266	3.48%
10/9/2023	-0.002	0.658	1.004	0.002	0.297	0.277	-1.11	2.22	3.63	0.266	3.48%
10/10/2023	-0.003	0.668	1.009	0.002	0.295	0.275	-1.24	2.27	3.67	0.270	3.47%
10/11/2023	-0.003	0.660	1.009	0.002	0.296	0.275	-1.19	2.23	3.66	0.267	3.47%
10/12/2023	-0.002	0.627	1.005	0.002	0.294	0.273	-1.11	2.13	3.68	0.267	3.44%

**Source:** Computations performed by Crowninshield Financial Research, Inc.

**Notes:** Dummy variables were used to control for potentially abnormal returns on Cassava Top News Article event dates. These dates are listed in Exhibit-9 and Exhibit-15. For the event study regressions on Class Period dates prior to 15 January 2021, the estimation period include all available prior synthetic stock returns. 15 January 2021 onwards, all estimation periods are the 252 trading days prior to each respective date.

**Exhibit-24**  
**Cassava Synthetic Stock Collective Event Study Results**  
All 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
9/14/2020	\$7.56	\$3.27	83.87%	1.53%	5.23%	4.35%	79.52%	11.83 ***
11/4/2020	\$11.31	\$8.99	22.90%	1.94%	6.02%	6.41%	16.49%	2.42 **
11/9/2020	\$10.01	\$10.42	-4.10%	1.06%	-0.73%	-0.88%	-3.21%	-0.47
11/13/2020	\$8.24	\$10.87	-27.70%	1.32%	1.25%	1.33%	-29.02%	-4.27 ***
12/14/2020	\$7.71	\$8.01	-3.81%	-0.33%	2.38%	2.71%	-6.52%	-1.00
1/4/2021	\$6.98	\$6.77	2.94%	-1.32%	-0.59%	-0.59%	3.52%	0.55
2/8/2021	\$59.73	\$44.50	29.42%	0.97%	2.09%	2.50%	26.93%	2.64 ***
2/10/2021	\$48.59	\$56.61	-15.27%	-0.03%	-0.85%	0.07%	-15.34%	-1.50
2/16/2021	\$51.59	\$45.74	12.04%	-0.11%	-2.18%	-0.95%	12.98%	1.27
3/9/2021	\$51.44	\$44.37	14.77%	1.67%	2.92%	3.48%	11.30%	1.10
3/23/2021	\$51.70	\$54.98	-6.16%	-1.21%	-4.02%	-2.69%	-3.46%	-0.34
4/21/2021	\$34.47	\$31.84	7.93%	1.12%	2.00%	2.60%	5.33%	0.52
5/7/2021	\$40.97	\$41.37	-0.95%	0.86%	0.90%	1.45%	-2.40%	-0.24
6/14/2021	\$75.10	\$76.64	-2.03%	0.13%	-0.08%	0.70%	-2.73%	-0.28
6/22/2021	\$77.35	\$89.40	-14.48%	0.49%	0.20%	1.13%	-15.62%	-1.59
7/29/2021	\$102.40	\$134.46	-27.24%	0.45%	-0.84%	0.32%	-27.56%	-2.82 ***
8/3/2021	\$84.28	\$79.74	5.54%	0.68%	2.17%	3.92%	1.61%	0.16
11/10/2021	\$68.41	\$77.06	-11.90%	-1.05%	-1.33%	-2.10%	-9.80%	-0.91
1/7/2022	\$47.52	\$48.60	-2.24%	-0.42%	-0.94%	-0.74%	-1.50%	-0.14
3/1/2022	\$39.07	\$41.11	-5.08%	-1.51%	-0.56%	-2.85%	-2.23%	-0.29
4/26/2022	\$21.04	\$19.77	6.21%	-2.87%	-3.70%	-7.65%	13.86%	1.83 *
5/5/2022	\$19.97	\$20.28	-1.52%	-3.70%	-4.12%	-8.75%	7.23%	0.96
5/10/2022	\$18.94	\$18.27	3.61%	0.13%	2.63%	2.19%	1.43%	0.19
8/3/2022	\$17.68	\$18.43	-4.17%	1.49%	3.87%	4.79%	-8.96%	-1.28
9/23/2022	\$39.49	\$48.55	-20.65%	-1.93%	-1.41%	-2.27%	-18.39%	-2.60 ***
10/27/2022	\$33.14	\$33.72	-1.71%	-0.41%	-1.45%	-1.17%	-0.54%	-0.08
11/3/2022	\$32.56	\$34.10	-4.62%	-0.89%	0.10%	-0.48%	-4.14%	-0.60
11/7/2022	\$32.20	\$33.51	-4.01%	0.81%	0.48%	0.60%	-4.61%	-0.72
11/18/2022	\$31.92	\$32.98	-3.27%	0.42%	0.53%	0.66%	-3.93%	-0.64
11/22/2022	\$31.40	\$31.02	1.22%	1.32%	0.88%	1.16%	0.06%	0.01
12/23/2022	\$30.03	\$31.49	-4.75%	0.55%	-1.52%	-1.28%	-3.47%	-0.58
1/24/2023	\$28.63	\$35.60	-21.81%	-0.11%	0.37%	0.48%	-22.29%	-3.69 ***
2/28/2023	\$23.88	\$24.02	-0.57%	-0.26%	0.22%	0.17%	-0.73%	-0.12
3/10/2023	\$24.14	\$24.18	-0.14%	-1.66%	-1.45%	-1.64%	1.50%	0.25
3/17/2023	\$25.59	\$25.99	-1.55%	-1.21%	-1.67%	-1.71%	0.16%	0.03
5/1/2023	\$22.64	\$22.65	-0.05%	-0.07%	0.95%	1.14%	-1.20%	-0.21
5/2/2023	\$21.52	\$22.64	-5.09%	-1.23%	-1.43%	-1.28%	-3.81%	-0.67
5/9/2023	\$25.88	\$22.39	14.49%	-0.39%	0.15%	0.33%	14.16%	2.49 **
7/5/2023	\$21.64	\$24.65	-13.04%	-0.33%	0.30%	0.25%	-13.29%	-2.56 **
8/3/2023	\$20.40	\$20.59	-0.88%	-0.24%	-0.28%	0.08%	-0.96%	-0.19
9/14/2023	\$19.04	\$18.88	0.86%	0.90%	0.42%	0.68%	0.19%	0.04

**Sources:** Bloomberg (Sector Index Logarithmic Return), CRSP (Market Index Logarithmic Return), and computations performed by Crowninshield Financial Research, Inc. (Cassava Synthetic Stock Closing Price; Cassava Synthetic Stock Prior Day Closing Price; Cassava Synthetic Stock Explained Return; Cassava Synthetic Stock Residual Return; t-statistic).

**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*" indicates statistical significance at the 99% confidence level.

## Exhibit-25

## Cassava Synthetic Stock Collective Event Study Results

8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
9/14/2020	\$7.56	\$3.27	83.87%	1.53%	5.23%	4.16%	79.71%	11.67 ***
11/4/2020	\$11.31	\$8.99	22.90%	1.94%	6.02%	6.19%	16.71%	2.42 **
11/13/2020	\$8.24	\$10.87	-27.70%	1.32%	1.25%	1.20%	-28.89%	-4.20 ***
12/14/2020	\$7.71	\$8.01	-3.81%	-0.33%	2.38%	2.70%	-6.51%	-0.98
1/4/2021	\$6.98	\$6.77	2.94%	-1.32%	-0.59%	-0.53%	3.47%	0.54
2/8/2021	\$59.73	\$44.50	29.42%	0.97%	2.09%	2.39%	27.03%	2.65 ***
2/10/2021	\$48.59	\$56.61	-15.27%	-0.03%	-0.85%	0.02%	-15.30%	-1.50
2/16/2021	\$51.59	\$45.74	12.04%	-0.11%	-2.18%	-1.00%	13.03%	1.27
3/9/2021	\$51.44	\$44.37	14.77%	1.67%	2.92%	3.32%	11.46%	1.12
5/7/2021	\$40.97	\$41.37	-0.95%	0.86%	0.90%	1.57%	-2.52%	-0.25
6/14/2021	\$75.10	\$76.64	-2.03%	0.13%	-0.08%	0.73%	-2.76%	-0.28
6/22/2021	\$77.35	\$89.40	-14.48%	0.49%	0.20%	1.19%	-15.67%	-1.61
7/29/2021	\$102.40	\$134.46	-27.24%	0.45%	-0.84%	0.29%	-27.53%	-2.83 ***
1/7/2022	\$47.52	\$48.60	-2.24%	-0.42%	-0.94%	-0.83%	-1.41%	-0.13
4/26/2022	\$21.04	\$19.77	6.21%	-2.87%	-3.70%	-7.87%	14.08%	1.87 *
5/10/2022	\$18.94	\$18.27	3.61%	0.13%	2.63%	2.18%	1.43%	0.19
9/23/2022	\$39.49	\$48.55	-20.65%	-1.93%	-1.41%	-2.33%	-18.32%	-2.59 ***
10/27/2022	\$33.14	\$33.72	-1.71%	-0.41%	-1.45%	-1.17%	-0.54%	-0.08
11/3/2022	\$32.56	\$34.10	-4.62%	-0.89%	0.10%	-0.60%	-4.02%	-0.58
11/18/2022	\$31.92	\$32.98	-3.27%	0.42%	0.53%	0.58%	-3.84%	-0.63
11/22/2022	\$31.40	\$31.02	1.22%	1.32%	0.88%	1.07%	0.15%	0.02
12/23/2022	\$30.03	\$31.49	-4.75%	0.55%	-1.52%	-1.19%	-3.56%	-0.60
1/24/2023	\$28.63	\$35.60	-21.81%	-0.11%	0.37%	0.39%	-22.19%	-3.68 ***
3/10/2023	\$24.14	\$24.18	-0.14%	-1.66%	-1.45%	-1.60%	1.46%	0.24
3/17/2023	\$25.59	\$25.99	-1.55%	-1.21%	-1.67%	-1.65%	0.10%	0.02
5/2/2023	\$21.52	\$22.64	-5.09%	-1.23%	-1.43%	-1.23%	-3.86%	-0.68
5/9/2023	\$25.88	\$22.39	14.49%	-0.39%	0.15%	0.25%	14.24%	2.51 **
7/5/2023	\$21.64	\$24.65	-13.04%	-0.33%	0.30%	0.16%	-13.20%	-2.55 **
9/14/2023	\$19.04	\$18.88	0.86%	0.90%	0.42%	0.64%	0.22%	0.05

**Sources:** Bloomberg (Sector Index Logarithmic Return), CRSP (Market Index Logarithmic Return), and computations performed by Crowninshield Financial Research, Inc. (Cassava Synthetic Stock Closing Price; Cassava Synthetic Stock Prior Day Closing Price; Cassava Synthetic Stock Explained Return; Cassava Synthetic Stock Residual Return; *t*-statistic).

**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*" indicates statistical significance at the 99% confidence level.

## Exhibit-26

## Cassava Synthetic Stock Collective Event Study Results

## Top News Article Events

Event Date	Cassava Synthetic Closing Price	Cassava Synthetic Prior Day Closing Price	Cassava Synthetic Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Explained Return	Cassava Synthetic Residual Return	t -statistic
9/14/2020	\$7.56	\$3.27	83.87%	1.53%	5.23%	-2.50%	86.37%	6.55 ***
11/4/2020	\$11.31	\$8.99	22.90%	1.94%	6.02%	-0.36%	23.26%	1.88 *
11/13/2020	\$8.24	\$10.87	-27.70%	1.32%	1.25%	0.60%	-28.30%	-2.31 **
12/28/2020	\$7.19	\$7.56	-5.01%	0.38%	-1.55%	0.23%	-5.24%	-0.45
2/2/2021	\$56.45	\$22.44	92.26%	1.39%	1.06%	1.19%	91.07%	7.79 ***
2/8/2021	\$59.73	\$44.50	29.42%	0.97%	2.09%	0.10%	29.32%	2.36 **
2/16/2021	\$51.59	\$45.74	12.04%	-0.11%	-2.18%	0.70%	11.34%	0.91
2/22/2021	\$52.27	\$54.88	-4.87%	-0.97%	-2.44%	-0.10%	-4.77%	-0.38
4/21/2021	\$34.47	\$31.84	7.93%	1.12%	2.00%	0.42%	7.51%	0.60
6/21/2021	\$89.40	\$79.10	12.24%	1.35%	0.82%	0.83%	11.41%	1.47
6/22/2021	\$77.35	\$89.40	-14.48%	0.49%	0.20%	0.55%	-15.04%	-1.94 *
7/29/2021	\$102.40	\$134.46	-27.24%	0.45%	-0.84%	-0.41%	-26.83%	-3.44 ***
8/3/2021	\$84.28	\$79.74	5.54%	0.68%	2.17%	3.36%	2.18%	0.26
8/25/2021	\$81.14	\$117.47	-37.00%	0.26%	0.47%	1.30%	-38.30%	-4.67 ***
8/27/2021	\$58.31	\$70.71	-19.28%	1.09%	0.33%	1.40%	-20.69%	-2.51 **
8/30/2021	\$53.19	\$58.31	-9.19%	0.30%	-0.23%	0.47%	-9.66%	-1.17
8/31/2021	\$56.83	\$53.19	6.62%	-0.11%	0.62%	1.28%	5.35%	0.65
9/3/2021	\$50.16	\$54.21	-7.76%	-0.01%	-0.19%	0.38%	-8.14%	-0.98
9/7/2021	\$47.89	\$50.16	-4.63%	-0.42%	-0.27%	0.06%	-4.68%	-0.56
9/13/2021	\$47.04	\$50.69	-7.48%	0.20%	-1.22%	-0.68%	-6.80%	-0.81
9/14/2021	\$41.91	\$47.04	-11.54%	-0.62%	-0.27%	-0.12%	-11.41%	-1.36
9/22/2021	\$52.02	\$52.66	-1.23%	0.99%	-0.13%	1.21%	-2.43%	-0.30
9/23/2021	\$60.16	\$52.02	14.54%	1.20%	1.40%	2.95%	11.58%	1.44
9/27/2021	\$67.75	\$61.76	9.25%	-0.10%	-0.78%	-0.32%	9.57%	1.18
10/4/2021	\$53.97	\$59.64	-9.98%	-1.30%	-2.00%	-2.47%	-7.51%	-0.93
10/6/2021	\$51.75	\$56.42	-8.63%	0.28%	-1.17%	-0.42%	-8.21%	-1.02
10/25/2021	\$47.36	\$45.16	4.76%	0.55%	1.10%	1.98%	2.78%	0.34
11/4/2021	\$83.03	\$56.22	38.98%	0.29%	-1.78%	-1.11%	40.09%	4.86 ***
11/18/2021	\$47.94	\$46.64	2.76%	0.03%	-0.34%	0.10%	2.65%	0.31
12/21/2021	\$43.03	\$36.55	16.34%	1.97%	0.66%	2.98%	13.36%	1.55
2/11/2022	\$49.29	\$50.74	-2.90%	-1.78%	-0.96%	-2.95%	0.05%	0.01
7/27/2022	\$17.84	\$20.52	-14.00%	2.50%	1.03%	2.30%	-16.30%	-2.62 ***
8/3/2022	\$17.68	\$18.43	-4.17%	1.49%	3.87%	5.09%	-9.26%	-1.62
8/17/2022	\$24.61	\$19.14	25.14%	-0.92%	-2.10%	-3.19%	28.32%	5.00 ***
1/24/2023	\$28.63	\$35.60	-21.81%	-0.11%	0.37%	0.32%	-22.13%	-3.82 ***

**Sources:** Bloomberg (Sector Index Logarithmic Return), CRSP (Market Index Logarithmic Return), and computations performed by Crowninshield Financial Research, Inc. (Cassava Synthetic Stock Closing Price; Cassava Synthetic Stock Prior Day Closing Price; Cassava Synthetic Stock Explained Return; Cassava Synthetic Stock Residual Return; t -statistic).

**Notes:**

"\*" indicates statistical significance at the 90% confidence level.

"\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*" indicates statistical significance at the 99% confidence level.

**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t -statistic
9/14/2020	\$7.56	\$3.27	83.87%	1.53%	5.23%	4.35%	79.52%	11.83 ***
9/15/2020	\$6.99	\$7.56	-7.92%	0.54%	1.10%	0.90%	-8.82%	-1.31
9/16/2020	\$6.90	\$6.99	-1.25%	-0.32%	0.04%	-0.12%	-1.13%	-0.17
9/17/2020	\$6.92	\$6.90	0.31%	-0.79%	-0.39%	-0.53%	0.84%	0.12
9/18/2020	\$9.82	\$6.92	34.93%	-0.89%	0.40%	0.08%	34.85%	5.21 ***
9/21/2020	\$9.56	\$9.82	-2.70%	-1.26%	-2.50%	-2.22%	-0.47%	-0.07
9/22/2020	\$10.16	\$9.56	6.18%	0.93%	0.83%	0.87%	5.30%	0.74
9/23/2020	\$9.45	\$10.16	-7.31%	-2.43%	-1.39%	-1.15%	-6.16%	-0.86
9/24/2020	\$9.37	\$9.45	-0.78%	0.20%	-0.99%	-0.82%	0.04%	0.00
9/25/2020	\$11.15	\$9.37	17.37%	1.56%	2.16%	2.12%	15.25%	2.13 **
9/28/2020	\$10.87	\$11.15	-2.55%	1.64%	0.69%	0.86%	-3.41%	-0.47
9/29/2020	\$11.13	\$10.87	2.35%	-0.40%	0.16%	0.33%	2.02%	0.28
9/30/2020	\$11.20	\$11.13	0.61%	0.69%	0.55%	0.71%	-0.10%	-0.01
10/1/2020	\$11.13	\$11.20	-0.61%	0.78%	0.94%	1.10%	-1.71%	-0.24
10/2/2020	\$10.46	\$11.13	-6.21%	-0.78%	-2.21%	-2.01%	-4.20%	-0.59
10/5/2020	\$11.31	\$10.46	7.83%	1.81%	4.30%	4.46%	3.37%	0.47
10/6/2020	\$11.08	\$11.31	-2.08%	-1.20%	-1.18%	-1.01%	-1.07%	-0.15
10/7/2020	\$11.78	\$11.08	6.19%	1.69%	2.18%	2.35%	3.83%	0.54
10/8/2020	\$11.97	\$11.78	1.58%	0.85%	0.26%	0.40%	1.18%	0.17
10/9/2020	\$11.62	\$11.97	-2.97%	0.85%	0.79%	0.98%	-3.95%	-0.56
10/12/2020	\$11.16	\$11.62	-4.06%	1.34%	0.73%	0.85%	-4.91%	-0.70
10/13/2020	\$10.99	\$11.16	-1.57%	-0.50%	0.49%	0.70%	-2.27%	-0.32
10/14/2020	\$10.79	\$10.99	-1.83%	-0.60%	-1.28%	-1.20%	-0.63%	-0.09
10/15/2020	\$10.62	\$10.79	-1.54%	-0.08%	-2.35%	-2.39%	0.85%	0.12
10/16/2020	\$10.28	\$10.62	-3.27%	-0.07%	0.49%	0.65%	-3.92%	-0.56
10/19/2020	\$9.66	\$10.28	-6.20%	-1.43%	-1.82%	-1.73%	-4.47%	-0.64
10/20/2020	\$9.22	\$9.66	-4.64%	0.38%	-0.59%	-0.57%	-4.07%	-0.58
10/21/2020	\$8.76	\$9.22	-5.12%	-0.34%	-1.61%	-1.66%	-3.46%	-0.50
10/22/2020	\$8.65	\$8.76	-1.35%	0.61%	1.33%	1.44%	-2.79%	-0.40
10/23/2020	\$9.18	\$8.65	6.02%	0.38%	0.26%	0.27%	5.75%	0.83
10/26/2020	\$8.88	\$9.18	-3.34%	-1.83%	-0.92%	-0.80%	-2.53%	-0.37
10/27/2020	\$8.91	\$8.88	0.27%	-0.30%	0.52%	0.62%	-0.34%	-0.05
10/28/2020	\$8.45	\$8.91	-5.24%	-3.34%	-2.57%	-2.49%	-2.74%	-0.40
10/29/2020	\$8.54	\$8.45	1.00%	1.04%	0.62%	0.62%	0.38%	0.06
10/30/2020	\$8.02	\$8.54	-6.28%	-1.32%	-2.16%	-2.22%	-4.06%	-0.59
11/2/2020	\$8.71	\$8.02	8.29%	1.20%	0.10%	0.03%	8.26%	1.21
11/3/2020	\$8.99	\$8.71	3.19%	1.86%	1.67%	1.76%	1.43%	0.21
11/4/2020	\$11.31	\$8.99	22.90%	1.94%	6.02%	6.41%	16.49%	2.42 **
11/5/2020	\$10.25	\$11.31	-9.82%	2.09%	-0.11%	-0.14%	-9.68%	-1.42
11/6/2020	\$10.42	\$10.25	1.69%	0.00%	-1.57%	-1.77%	3.46%	0.51
11/9/2020	\$10.01	\$10.42	-4.10%	1.06%	-0.73%	-0.88%	-3.21%	-0.47
11/10/2020	\$9.73	\$10.01	-2.75%	-0.06%	0.19%	0.24%	-2.99%	-0.44
11/11/2020	\$10.60	\$9.73	8.51%	0.80%	1.18%	1.24%	7.27%	1.07
11/12/2020	\$10.87	\$10.60	2.57%	-0.97%	-0.01%	0.13%	2.44%	0.36
11/13/2020	\$8.24	\$10.87	-27.70%	1.32%	1.25%	1.33%	-29.02%	-4.27 ***
11/16/2020	\$8.09	\$8.24	-1.94%	1.23%	0.00%	-0.07%	-1.88%	-0.28
11/17/2020	\$7.92	\$8.09	-2.11%	-0.15%	-0.44%	-0.43%	-1.67%	-0.25
11/18/2020	\$7.44	\$7.92	-6.23%	-0.91%	-1.96%	-2.09%	-4.13%	-0.61
11/19/2020	\$7.44	\$7.44	0.06%	0.58%	0.14%	0.11%	-0.05%	-0.01
11/20/2020	\$7.30	\$7.44	-1.99%	-0.43%	0.62%	0.78%	-2.78%	-0.41
11/23/2020	\$7.07	\$7.30	-3.20%	0.79%	0.24%	0.19%	-3.39%	-0.50
11/24/2020	\$7.18	\$7.07	1.53%	1.50%	-0.66%	-0.95%	2.48%	0.37
11/25/2020	\$7.52	\$7.18	4.72%	0.02%	0.54%	0.61%	4.11%	0.61
11/27/2020	\$7.73	\$7.52	2.78%	0.40%	3.06%	3.48%	-0.70%	-0.10
11/30/2020	\$7.57	\$7.73	-2.18%	-0.58%	1.09%	1.31%	-3.49%	-0.52
12/1/2020	\$7.38	\$7.57	-2.55%	0.96%	0.37%	0.33%	-2.88%	-0.43
12/2/2020	\$7.20	\$7.38	-2.36%	0.12%	-0.28%	-0.34%	-2.02%	-0.30

## Exhibit-27

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
12/3/2020	\$7.35	\$7.20	2.06%	0.23%	0.89%	0.96%	1.10%	0.17
12/4/2020	\$7.58	\$7.35	2.95%	1.04%	1.00%	1.01%	1.95%	0.29
12/7/2020	\$7.46	\$7.58	-1.59%	-0.02%	-0.04%	-0.05%	-1.54%	-0.23
12/8/2020	\$7.77	\$7.46	4.14%	0.43%	1.70%	1.86%	2.28%	0.35
12/9/2020	\$7.79	\$7.77	0.19%	-0.96%	-1.78%	-1.94%	2.12%	0.32
12/10/2020	\$7.59	\$7.79	-2.50%	0.26%	1.47%	1.64%	-4.14%	-0.63
12/11/2020	\$8.01	\$7.59	5.28%	-0.23%	0.21%	0.24%	5.05%	0.77
12/14/2020	\$7.71	\$8.01	-3.81%	-0.33%	2.38%	2.71%	-6.52%	-1.00
12/15/2020	\$7.92	\$7.71	2.71%	1.30%	0.08%	-0.02%	2.73%	0.42
12/16/2020	\$7.87	\$7.92	-0.57%	0.14%	-0.63%	-0.69%	0.13%	0.02
12/17/2020	\$8.26	\$7.87	4.82%	0.79%	1.38%	1.49%	3.33%	0.51
12/18/2020	\$8.03	\$8.26	-2.88%	-0.21%	0.40%	0.51%	-3.38%	-0.52
12/21/2020	\$7.67	\$8.03	-4.54%	-0.29%	0.47%	0.56%	-5.11%	-0.79
12/22/2020	\$7.53	\$7.67	-1.85%	0.06%	0.27%	0.29%	-2.14%	-0.33
12/23/2020	\$7.53	\$7.53	0.06%	0.14%	0.30%	0.31%	-0.25%	-0.04
12/24/2020	\$7.56	\$7.53	0.31%	0.23%	-0.78%	-0.88%	1.19%	0.18
12/28/2020	\$7.19	\$7.56	-5.01%	0.38%	-1.55%	-1.73%	-3.28%	-0.51
12/29/2020	\$6.78	\$7.19	-5.88%	-0.37%	-1.19%	-1.32%	-4.56%	-0.71
12/30/2020	\$6.93	\$6.78	2.22%	0.33%	0.46%	0.44%	1.77%	0.28
12/31/2020	\$6.77	\$6.93	-2.26%	0.36%	-0.67%	-0.83%	-1.44%	-0.22
1/4/2021	\$6.98	\$6.77	2.94%	-1.32%	-0.59%	-0.59%	3.52%	0.55
1/5/2021	\$7.55	\$6.98	7.91%	0.90%	0.15%	0.04%	7.87%	1.23
1/6/2021	\$8.04	\$7.55	6.24%	0.80%	1.30%	1.38%	4.86%	0.76
1/7/2021	\$8.26	\$8.04	2.68%	1.61%	2.88%	3.13%	-0.45%	-0.07
1/8/2021	\$8.27	\$8.26	0.12%	0.47%	0.61%	0.67%	-0.55%	-0.09
1/11/2021	\$8.17	\$8.27	-1.18%	-0.57%	-0.14%	-0.10%	-1.07%	-0.17
1/12/2021	\$8.12	\$8.17	-0.65%	0.42%	0.24%	0.24%	-0.89%	-0.14
1/13/2021	\$11.37	\$8.12	33.70%	0.09%	-0.22%	-0.26%	33.96%	5.35 ***
1/14/2021	\$10.32	\$11.37	-9.62%	0.00%	2.41%	2.78%	-12.41%	-1.85 *
1/15/2021	\$10.47	\$10.32	1.38%	-0.86%	-0.08%	0.00%	1.38%	0.21
1/19/2021	\$12.81	\$10.47	20.20%	0.85%	1.89%	2.01%	18.19%	2.70 ***
1/20/2021	\$12.13	\$12.81	-5.50%	1.20%	0.25%	0.42%	-5.92%	-0.86
1/21/2021	\$11.92	\$12.13	-1.71%	-0.09%	-1.05%	-0.99%	-0.72%	-0.10
1/22/2021	\$12.70	\$11.92	6.35%	-0.15%	0.91%	1.14%	5.20%	0.76
1/25/2021	\$15.45	\$12.70	19.59%	0.24%	1.71%	2.05%	17.54%	2.56 **
1/26/2021	\$19.13	\$15.45	21.36%	-0.29%	-1.81%	-1.74%	23.10%	3.33 ***
1/27/2021	\$19.59	\$19.13	2.37%	-2.51%	-3.04%	-2.72%	5.09%	0.72
1/28/2021	\$18.27	\$19.59	-6.95%	0.92%	0.35%	0.68%	-7.63%	-1.09
1/29/2021	\$19.27	\$18.27	5.32%	-1.78%	0.31%	0.64%	4.68%	0.67
2/1/2021	\$22.44	\$19.27	15.22%	1.71%	1.16%	1.48%	13.74%	1.96 *
2/2/2021	\$56.45	\$22.44	92.26%	1.39%	1.06%	1.47%	90.79%	12.83 ***
2/3/2021	\$86.84	\$56.45	43.07%	0.14%	-0.33%	0.49%	42.58%	4.61 ***
2/4/2021	\$63.41	\$86.84	-31.44%	1.12%	1.44%	2.49%	-33.92%	-3.52 ***
2/5/2021	\$44.50	\$63.41	-35.41%	0.61%	1.66%	2.39%	-37.80%	-3.82 ***
2/8/2021	\$59.73	\$44.50	29.42%	0.97%	2.09%	2.50%	26.93%	2.64 ***
2/9/2021	\$56.61	\$59.73	-5.37%	0.10%	-0.62%	0.30%	-5.67%	-0.55
2/10/2021	\$48.59	\$56.61	-15.27%	-0.03%	-0.85%	0.07%	-15.34%	-1.50
2/11/2021	\$47.85	\$48.59	-1.54%	0.19%	-0.19%	0.61%	-2.15%	-0.21
2/12/2021	\$45.74	\$47.85	-4.51%	0.47%	0.49%	1.19%	-5.70%	-0.56
2/16/2021	\$51.59	\$45.74	12.04%	-0.11%	-2.18%	-0.95%	12.98%	1.27
2/17/2021	\$50.82	\$51.59	-1.50%	-0.23%	0.42%	0.95%	-2.45%	-0.24
2/18/2021	\$50.31	\$50.82	-1.01%	-0.66%	-1.86%	-0.85%	-0.16%	-0.02
2/19/2021	\$54.88	\$50.31	8.70%	0.27%	1.04%	1.57%	7.13%	0.70
2/22/2021	\$52.27	\$54.88	-4.87%	-0.97%	-2.44%	-1.36%	-3.51%	-0.34
2/23/2021	\$51.55	\$52.27	-1.40%	-0.13%	-1.44%	-0.43%	-0.97%	-0.09
2/24/2021	\$52.37	\$51.55	1.58%	1.12%	0.87%	1.66%	-0.08%	-0.01
2/25/2021	\$50.55	\$52.37	-3.54%	-2.70%	-2.59%	-1.97%	-1.57%	-0.15

**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
2/26/2021	\$48.47	\$50.55	-4.20%	-0.39%	-0.02%	0.65%	-4.84%	-0.47
3/1/2021	\$49.62	\$48.47	2.34%	2.45%	1.61%	2.56%	-0.23%	-0.02
3/2/2021	\$51.25	\$49.62	3.25%	-0.91%	-2.01%	-1.08%	4.33%	0.42
3/3/2021	\$48.47	\$51.25	-5.59%	-1.48%	-3.68%	-2.46%	-3.14%	-0.31
3/4/2021	\$44.05	\$48.47	-9.57%	-1.68%	-2.46%	-1.56%	-8.01%	-0.78
3/5/2021	\$42.83	\$44.05	-2.81%	1.72%	1.97%	2.75%	-5.55%	-0.54
3/8/2021	\$44.37	\$42.83	3.55%	-0.59%	-1.98%	-1.07%	4.62%	0.45
3/9/2021	\$51.44	\$44.37	14.77%	1.67%	2.92%	3.48%	11.30%	1.10
3/10/2021	\$51.15	\$51.44	-0.56%	0.68%	0.07%	0.93%	-1.49%	-0.15
3/11/2021	\$53.67	\$51.15	4.80%	1.41%	2.76%	3.26%	1.55%	0.15
3/12/2021	\$53.14	\$53.67	-0.98%	0.15%	-0.61%	0.42%	-1.40%	-0.14
3/15/2021	\$51.98	\$53.14	-2.21%	0.70%	1.49%	2.10%	-4.32%	-0.42
3/16/2021	\$51.89	\$51.98	-0.17%	-0.43%	0.00%	0.79%	-0.96%	-0.09
3/17/2021	\$61.99	\$51.89	17.78%	0.36%	0.63%	1.34%	16.44%	1.61
3/18/2021	\$55.67	\$61.99	-10.75%	-1.81%	-3.26%	-2.26%	-8.49%	-0.83
3/19/2021	\$57.03	\$55.67	2.41%	0.18%	1.73%	2.43%	-0.02%	0.00
3/22/2021	\$54.98	\$57.03	-3.65%	0.48%	1.34%	2.05%	-5.70%	-0.56
3/23/2021	\$51.70	\$54.98	-6.16%	-1.21%	-4.02%	-2.69%	-3.46%	-0.34
3/24/2021	\$48.41	\$51.70	-6.58%	-0.91%	-2.96%	-1.76%	-4.82%	-0.47
3/25/2021	\$49.45	\$48.41	2.13%	0.65%	1.11%	1.84%	0.29%	0.03
3/26/2021	\$46.02	\$49.45	-7.18%	1.52%	0.27%	1.00%	-8.17%	-0.80
3/29/2021	\$44.09	\$46.02	-4.29%	-0.53%	-1.39%	-0.52%	-3.77%	-0.37
3/30/2021	\$43.43	\$44.09	-1.50%	0.00%	-0.36%	0.38%	-1.88%	-0.18
3/31/2021	\$44.47	\$43.43	2.36%	0.56%	2.51%	3.32%	-0.96%	-0.09
4/1/2021	\$45.98	\$44.47	3.33%	1.27%	0.83%	1.58%	1.76%	0.17
4/5/2021	\$44.42	\$45.98	-3.46%	1.14%	0.45%	1.23%	-4.68%	-0.46
4/6/2021	\$42.23	\$44.42	-5.04%	0.03%	-0.58%	0.12%	-5.16%	-0.51
4/7/2021	\$41.03	\$42.23	-2.88%	-0.15%	-1.78%	-1.05%	-1.83%	-0.18
4/8/2021	\$41.61	\$41.03	1.41%	0.59%	0.32%	0.99%	0.41%	0.04
4/9/2021	\$41.11	\$41.61	-1.22%	0.55%	-0.38%	0.34%	-1.56%	-0.15
4/12/2021	\$35.63	\$41.11	-14.30%	-0.07%	-1.44%	-0.72%	-13.58%	-1.33
4/13/2021	\$35.60	\$35.63	-0.08%	0.40%	1.75%	2.40%	-2.47%	-0.24
4/14/2021	\$35.28	\$35.60	-0.91%	-0.29%	1.51%	1.90%	-2.82%	-0.28
4/15/2021	\$34.86	\$35.28	-1.19%	1.00%	1.26%	1.84%	-3.02%	-0.30
4/16/2021	\$34.63	\$34.86	-0.68%	0.26%	0.05%	0.63%	-1.31%	-0.13
4/19/2021	\$33.71	\$34.63	-2.67%	-0.70%	-1.09%	-0.55%	-2.13%	-0.21
4/20/2021	\$31.84	\$33.71	-5.71%	-0.91%	0.02%	0.42%	-6.14%	-0.60
4/21/2021	\$34.47	\$31.84	7.93%	1.12%	2.00%	2.60%	5.33%	0.52
4/22/2021	\$35.81	\$34.47	3.83%	-0.73%	-0.16%	0.28%	3.55%	0.35
4/23/2021	\$39.18	\$35.81	8.98%	1.20%	0.46%	1.15%	7.83%	0.77
4/26/2021	\$41.30	\$39.18	5.26%	0.44%	2.02%	2.46%	2.81%	0.28
4/27/2021	\$43.99	\$41.30	6.31%	-0.02%	-0.43%	0.07%	6.25%	0.62
4/28/2021	\$46.75	\$43.99	6.08%	0.01%	-0.72%	-0.18%	6.27%	0.62
4/29/2021	\$47.19	\$46.75	0.94%	0.35%	-1.12%	-0.48%	1.42%	0.14
4/30/2021	\$46.36	\$47.19	-1.77%	-0.80%	-0.03%	0.44%	-2.21%	-0.22
5/3/2021	\$42.76	\$46.36	-8.10%	0.20%	-0.03%	0.53%	-8.63%	-0.86
5/4/2021	\$40.90	\$42.76	-4.43%	-0.85%	-3.10%	-2.63%	-1.81%	-0.18
5/5/2021	\$41.59	\$40.90	1.67%	-0.01%	-0.80%	-0.31%	1.98%	0.20
5/6/2021	\$41.37	\$41.59	-0.54%	0.48%	-0.36%	0.18%	-0.72%	-0.07
5/7/2021	\$40.97	\$41.37	-0.95%	0.86%	0.90%	1.45%	-2.40%	-0.24
5/10/2021	\$38.34	\$40.97	-6.66%	-1.24%	-1.85%	-1.43%	-5.23%	-0.52
5/11/2021	\$39.10	\$38.34	1.99%	-0.66%	0.53%	0.98%	1.01%	0.10
5/12/2021	\$37.28	\$39.10	-4.77%	-2.28%	-0.93%	-0.52%	-4.25%	-0.42
5/13/2021	\$37.65	\$37.28	0.98%	0.97%	0.01%	0.46%	0.52%	0.05
5/14/2021	\$40.61	\$37.65	7.58%	1.74%	2.21%	2.66%	4.92%	0.49
5/17/2021	\$43.45	\$40.61	6.76%	-0.14%	0.39%	0.86%	5.90%	0.59
5/18/2021	\$46.54	\$43.45	6.86%	-0.60%	0.27%	0.76%	6.09%	0.61

**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
5/19/2021	\$47.45	\$46.54	1.95%	-0.38%	-1.04%	-0.60%	2.55%	0.25
5/20/2021	\$48.86	\$47.45	2.93%	1.11%	2.26%	2.78%	0.15%	0.02
5/21/2021	\$49.76	\$48.86	1.82%	-0.03%	-0.69%	-0.24%	2.06%	0.21
5/24/2021	\$47.89	\$49.76	-3.82%	0.93%	-0.57%	-0.25%	-3.57%	-0.36
5/25/2021	\$47.38	\$47.89	-1.08%	-0.27%	-0.62%	-0.09%	-0.99%	-0.10
5/26/2021	\$50.66	\$47.38	6.69%	0.45%	0.62%	1.13%	5.57%	0.56
5/27/2021	\$54.77	\$50.66	7.80%	0.29%	0.42%	0.98%	6.82%	0.68
5/28/2021	\$53.43	\$54.77	-2.47%	0.10%	0.43%	1.06%	-3.53%	-0.35
6/1/2021	\$56.36	\$53.43	5.34%	0.17%	-0.67%	-0.24%	5.57%	0.56
6/2/2021	\$60.18	\$56.36	6.55%	0.17%	0.32%	0.88%	5.67%	0.57
6/3/2021	\$61.48	\$60.18	2.14%	-0.52%	-0.11%	0.62%	1.52%	0.15
6/4/2021	\$63.83	\$61.48	3.75%	0.84%	1.23%	1.89%	1.86%	0.19
6/7/2021	\$67.14	\$63.83	5.06%	0.16%	3.56%	4.56%	0.50%	0.05
6/8/2021	\$68.63	\$67.14	2.19%	0.18%	-0.09%	0.62%	1.57%	0.16
6/9/2021	\$66.07	\$68.63	-3.81%	-0.29%	1.40%	2.41%	-6.22%	-0.64
6/10/2021	\$65.99	\$66.07	-0.12%	0.40%	1.74%	2.50%	-2.62%	-0.27
6/11/2021	\$76.64	\$65.99	14.97%	0.31%	-0.74%	-0.09%	15.06%	1.55
6/14/2021	\$75.10	\$76.64	-2.03%	0.13%	-0.08%	0.70%	-2.73%	-0.28
6/15/2021	\$71.71	\$75.10	-4.62%	-0.30%	-1.63%	-0.84%	-3.79%	-0.39
6/16/2021	\$79.85	\$71.71	10.76%	-0.47%	-0.76%	-0.01%	10.77%	1.10
6/17/2021	\$78.22	\$79.85	-2.07%	-0.14%	0.67%	1.47%	-3.54%	-0.36
6/18/2021	\$79.10	\$78.22	1.13%	-1.26%	-0.31%	0.46%	0.67%	0.07
6/21/2021	\$89.40	\$79.10	12.24%	1.35%	0.82%	1.70%	10.54%	1.08
6/22/2021	\$77.35	\$89.40	-14.48%	0.49%	0.20%	1.13%	-15.62%	-1.59
6/23/2021	\$77.29	\$77.35	-0.07%	-0.01%	-0.35%	0.53%	-0.61%	-0.06
6/24/2021	\$81.09	\$77.29	4.80%	0.65%	1.26%	2.25%	2.55%	0.26
6/25/2021	\$78.39	\$81.09	-3.38%	0.32%	0.79%	1.70%	-5.08%	-0.52
6/28/2021	\$84.81	\$78.39	7.87%	0.11%	0.19%	1.04%	6.83%	0.70
6/29/2021	\$82.48	\$84.81	-2.78%	0.00%	-0.02%	0.76%	-3.54%	-0.37
6/30/2021	\$84.77	\$82.48	2.73%	0.04%	0.35%	1.15%	1.58%	0.16
7/1/2021	\$88.45	\$84.77	4.25%	0.42%	1.16%	2.12%	2.13%	0.22
7/2/2021	\$89.59	\$88.45	1.28%	0.50%	-0.45%	0.74%	0.55%	0.06
7/6/2021	\$92.14	\$89.59	2.81%	-0.30%	-1.50%	-0.73%	3.53%	0.37
7/7/2021	\$96.29	\$92.14	4.41%	0.11%	-1.32%	-0.27%	4.68%	0.49
7/8/2021	\$105.47	\$96.29	9.10%	-0.90%	0.49%	0.75%	8.35%	0.87
7/9/2021	\$94.78	\$105.47	-10.69%	1.28%	0.84%	2.45%	-13.14%	-1.36
7/12/2021	\$98.63	\$94.78	3.98%	0.22%	-0.44%	0.56%	3.42%	0.35
7/13/2021	\$103.30	\$98.63	4.63%	-0.60%	-1.09%	-0.45%	5.08%	0.52
7/14/2021	\$96.89	\$103.30	-6.40%	-0.24%	-1.26%	-0.50%	-5.90%	-0.61
7/15/2021	\$82.22	\$96.89	-16.42%	-0.39%	-0.01%	0.63%	-17.05%	-1.77 *
7/16/2021	\$79.60	\$82.22	-3.24%	-0.76%	1.07%	1.41%	-4.65%	-0.48
7/19/2021	\$81.90	\$79.60	2.85%	-1.47%	0.77%	0.52%	2.33%	0.24
7/20/2021	\$90.39	\$81.90	9.86%	1.68%	1.32%	3.28%	6.58%	0.68
7/21/2021	\$116.57	\$90.39	25.43%	0.96%	0.60%	2.19%	23.25%	2.41 **
7/22/2021	\$125.67	\$116.57	7.52%	0.03%	-0.13%	0.84%	6.68%	0.68
7/23/2021	\$122.87	\$125.67	-2.25%	0.89%	0.79%	2.53%	-4.78%	-0.49
7/26/2021	\$119.30	\$122.87	-2.95%	0.16%	-2.03%	-1.10%	-1.85%	-0.19
7/27/2021	\$126.87	\$119.30	6.15%	-0.60%	-0.93%	-0.55%	6.70%	0.69
7/28/2021	\$134.46	\$126.87	5.81%	0.30%	2.92%	4.62%	1.19%	0.12
7/29/2021	\$102.40	\$134.46	-27.24%	0.45%	-0.84%	0.32%	-27.56%	-2.82 ***
7/30/2021	\$69.60	\$102.40	-38.61%	-0.56%	-0.14%	0.44%	-39.05%	-3.99 ***
8/2/2021	\$79.74	\$69.60	13.60%	-0.14%	-0.01%	0.72%	12.89%	1.27
8/3/2021	\$84.28	\$79.74	5.54%	0.68%	2.17%	3.92%	1.61%	0.16
8/4/2021	\$87.76	\$84.28	4.04%	-0.40%	1.37%	2.21%	1.83%	0.18
8/5/2021	\$100.98	\$87.76	14.03%	0.71%	1.82%	3.68%	10.36%	1.02
8/6/2021	\$96.17	\$100.98	-4.88%	0.08%	-1.51%	-0.84%	-4.04%	-0.40
8/9/2021	\$104.72	\$96.17	8.52%	-0.04%	2.56%	4.13%	4.39%	0.43



**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
8/10/2021	\$108.25	\$104.72	3.31%	0.07%	-1.64%	-1.05%	4.37%	0.43
8/11/2021	\$108.63	\$108.25	0.35%	0.24%	-3.04%	-2.81%	3.16%	0.31
8/12/2021	\$119.69	\$108.63	9.69%	0.20%	0.85%	2.22%	7.46%	0.74
8/13/2021	\$121.82	\$119.69	1.77%	0.03%	-0.06%	1.01%	0.76%	0.07
8/16/2021	\$116.87	\$121.82	-4.15%	-0.08%	-1.38%	-0.68%	-3.48%	-0.34
8/17/2021	\$104.49	\$116.87	-11.19%	-0.79%	1.99%	3.00%	-14.19%	-1.40
8/18/2021	\$106.12	\$104.49	1.55%	-0.89%	-1.37%	-1.36%	2.91%	0.29
8/19/2021	\$101.57	\$106.12	-4.38%	-0.23%	-2.57%	-2.02%	-2.36%	-0.23
8/20/2021	\$104.07	\$101.57	2.43%	0.86%	1.64%	3.66%	-1.23%	-0.12
8/23/2021	\$115.80	\$104.07	10.68%	1.05%	3.09%	5.47%	5.21%	0.51
8/24/2021	\$117.47	\$115.80	1.43%	0.42%	-0.34%	1.05%	0.38%	0.04
8/25/2021	\$81.14	\$117.47	-37.00%	0.26%	0.47%	1.87%	-38.87%	-3.85 ***
8/26/2021	\$70.71	\$81.14	-13.76%	-0.65%	-0.65%	-0.43%	-13.33%	-1.28
8/27/2021	\$58.31	\$70.71	-19.28%	1.09%	0.33%	2.39%	-21.68%	-2.07 **
8/30/2021	\$53.19	\$58.31	-9.19%	0.30%	-0.23%	0.85%	-10.04%	-0.95
8/31/2021	\$56.83	\$53.19	6.62%	-0.11%	0.62%	1.32%	5.30%	0.50
9/1/2021	\$52.07	\$56.83	-8.75%	0.20%	1.02%	2.08%	-10.82%	-1.03
9/2/2021	\$54.21	\$52.07	4.03%	0.41%	1.06%	2.24%	1.79%	0.17
9/3/2021	\$50.16	\$54.21	-7.76%	-0.01%	-0.19%	0.55%	-8.32%	-0.79
9/7/2021	\$47.89	\$50.16	-4.63%	-0.42%	-0.27%	-0.03%	-4.60%	-0.44
9/8/2021	\$46.43	\$47.89	-3.10%	-0.35%	-1.06%	-0.81%	-2.28%	-0.22
9/9/2021	\$49.71	\$46.43	6.83%	-0.29%	0.31%	0.60%	6.23%	0.59
9/10/2021	\$50.69	\$49.71	1.95%	-0.73%	-0.52%	-0.75%	2.70%	0.26
9/13/2021	\$47.04	\$50.69	-7.48%	0.20%	-1.22%	-0.39%	-7.10%	-0.67
9/14/2021	\$41.91	\$47.04	-11.54%	-0.62%	-0.27%	-0.37%	-11.16%	-1.06
9/15/2021	\$43.92	\$41.91	4.67%	0.85%	0.95%	2.62%	2.05%	0.19
9/16/2021	\$44.07	\$43.92	0.35%	-0.09%	0.50%	1.08%	-0.73%	-0.07
9/17/2021	\$48.26	\$44.07	9.08%	-0.74%	0.59%	0.39%	8.69%	0.82
9/20/2021	\$48.05	\$48.26	-0.45%	-1.84%	-2.22%	-3.93%	3.49%	0.33
9/21/2021	\$52.66	\$48.05	9.17%	0.09%	1.00%	1.62%	7.54%	0.73
9/22/2021	\$52.02	\$52.66	-1.23%	0.99%	-0.13%	1.82%	-3.05%	-0.30
9/23/2021	\$60.16	\$52.02	14.54%	1.20%	1.40%	3.60%	10.93%	1.06
9/24/2021	\$61.76	\$60.16	2.63%	-0.01%	-1.89%	-1.40%	4.03%	0.39
9/27/2021	\$67.75	\$61.76	9.25%	-0.10%	-0.78%	-0.32%	9.57%	0.93
9/28/2021	\$64.42	\$67.75	-5.04%	-2.10%	-3.01%	-5.07%	0.03%	0.00
9/29/2021	\$61.59	\$64.42	-4.50%	-0.01%	-0.43%	0.21%	-4.71%	-0.46
9/30/2021	\$61.64	\$61.59	0.08%	-0.95%	0.20%	-0.57%	0.65%	0.06
10/1/2021	\$59.64	\$61.64	-3.30%	1.06%	-1.76%	0.45%	-3.75%	-0.36
10/4/2021	\$53.97	\$59.64	-9.98%	-1.30%	-2.00%	-3.12%	-6.86%	-0.66
10/5/2021	\$56.42	\$53.97	4.43%	0.95%	0.16%	2.07%	2.36%	0.23
10/6/2021	\$51.75	\$56.42	-8.63%	0.28%	-1.17%	-0.14%	-8.49%	-0.82
10/7/2021	\$52.93	\$51.75	2.25%	0.99%	1.25%	3.18%	-0.93%	-0.09
10/8/2021	\$50.97	\$52.93	-3.78%	-0.25%	-0.53%	-0.32%	-3.46%	-0.33
10/11/2021	\$50.48	\$50.97	-0.96%	-0.64%	-0.03%	-0.37%	-0.59%	-0.06
10/12/2021	\$51.15	\$50.48	1.31%	0.02%	0.10%	0.69%	0.61%	0.06
10/13/2021	\$54.37	\$51.15	6.11%	0.48%	0.42%	1.71%	4.40%	0.43
10/14/2021	\$52.70	\$54.37	-3.12%	1.58%	1.31%	4.24%	-7.36%	-0.71
10/15/2021	\$49.27	\$52.70	-6.73%	0.57%	-0.68%	0.70%	-7.43%	-0.72
10/18/2021	\$49.63	\$49.27	0.73%	0.33%	-1.29%	-0.34%	1.07%	0.10
10/19/2021	\$46.84	\$49.63	-5.80%	0.68%	1.11%	2.64%	-8.44%	-0.82
10/20/2021	\$45.78	\$46.84	-2.28%	0.39%	-0.07%	1.00%	-3.28%	-0.32
10/21/2021	\$46.20	\$45.78	0.91%	0.29%	0.72%	1.68%	-0.77%	-0.07
10/22/2021	\$45.16	\$46.20	-2.27%	-0.17%	-0.45%	-0.09%	-2.18%	-0.21
10/25/2021	\$47.36	\$45.16	4.76%	0.55%	1.10%	2.41%	2.35%	0.23
10/26/2021	\$46.73	\$47.36	-1.33%	-0.01%	-0.02%	0.55%	-1.89%	-0.18
10/27/2021	\$44.36	\$46.73	-5.20%	-0.76%	-1.65%	-2.08%	-3.12%	-0.30
10/28/2021	\$44.01	\$44.36	-0.80%	1.12%	1.90%	3.98%	-4.78%	-0.46

## Exhibit-27

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
10/29/2021	\$42.82	\$44.01	-2.73%	0.10%	-0.34%	0.32%	-3.05%	-0.29
11/1/2021	\$45.43	\$42.82	5.91%	0.57%	1.59%	2.89%	3.02%	0.29
11/2/2021	\$57.47	\$45.43	23.51%	0.20%	0.78%	1.61%	21.91%	2.11 **
11/3/2021	\$56.22	\$57.47	-2.19%	0.73%	1.71%	3.37%	-5.56%	-0.53
11/4/2021	\$83.03	\$56.22	38.98%	0.29%	-1.78%	-0.91%	39.89%	3.81 ***
11/5/2021	\$89.16	\$83.03	7.13%	0.40%	-2.69%	-0.71%	7.83%	0.73
11/8/2021	\$87.94	\$89.16	-1.38%	0.20%	0.07%	1.24%	-2.62%	-0.24
11/9/2021	\$77.06	\$87.94	-13.21%	-0.29%	-1.08%	-0.40%	-12.81%	-1.19
11/10/2021	\$68.41	\$77.06	-11.90%	-1.05%	-1.33%	-2.10%	-9.80%	-0.91
11/11/2021	\$71.56	\$68.41	4.50%	0.24%	-0.21%	1.09%	3.41%	0.32
11/12/2021	\$67.58	\$71.56	-5.72%	0.71%	0.12%	2.16%	-7.88%	-0.73
11/15/2021	\$59.88	\$67.58	-12.11%	-0.03%	-0.45%	0.36%	-12.46%	-1.16
11/16/2021	\$61.00	\$59.88	1.86%	0.40%	0.08%	1.46%	0.40%	0.04
11/17/2021	\$46.64	\$61.00	-26.85%	-0.45%	-0.09%	-0.24%	-26.60%	-2.47 **
11/18/2021	\$47.94	\$46.64	2.76%	0.03%	-0.34%	0.41%	2.35%	0.22
11/19/2021	\$52.70	\$47.94	9.47%	-0.29%	0.52%	0.29%	9.18%	0.84
11/22/2021	\$52.07	\$52.70	-1.21%	-0.62%	-0.68%	-1.02%	-0.19%	-0.02
11/23/2021	\$51.97	\$52.07	-0.19%	-0.03%	-0.37%	0.36%	-0.55%	-0.05
11/24/2021	\$57.15	\$51.97	9.51%	0.32%	0.22%	1.44%	8.07%	0.74
11/26/2021	\$55.43	\$57.15	-3.06%	-2.26%	0.41%	-3.74%	0.68%	0.06
11/29/2021	\$54.08	\$55.43	-2.47%	1.00%	0.46%	3.02%	-5.49%	-0.50
11/30/2021	\$52.94	\$54.08	-2.13%	-1.93%	-0.89%	-3.76%	1.63%	0.15
12/1/2021	\$48.40	\$52.94	-8.96%	-1.52%	-2.26%	-3.70%	-5.26%	-0.48
12/2/2021	\$47.90	\$48.40	-1.04%	1.53%	0.42%	4.07%	-5.11%	-0.47
12/3/2021	\$45.40	\$47.90	-5.36%	-1.14%	-2.35%	-3.09%	-2.27%	-0.21
12/6/2021	\$43.55	\$45.40	-4.17%	1.17%	-1.56%	2.00%	-6.18%	-0.57
12/7/2021	\$47.09	\$43.55	7.83%	2.13%	3.81%	7.39%	0.44%	0.04
12/8/2021	\$49.31	\$47.09	4.60%	0.43%	1.20%	2.32%	2.27%	0.21
12/9/2021	\$45.43	\$49.31	-8.18%	-1.08%	-2.23%	-2.97%	-5.21%	-0.48
12/10/2021	\$43.82	\$45.43	-3.62%	0.61%	-1.27%	0.89%	-4.51%	-0.41
12/13/2021	\$44.61	\$43.82	1.81%	-0.99%	1.30%	-0.22%	2.03%	0.19
12/14/2021	\$46.47	\$44.61	4.08%	-0.77%	-0.16%	-0.95%	5.03%	0.46
12/15/2021	\$45.22	\$46.47	-2.73%	1.49%	2.22%	5.17%	-7.90%	-0.72
12/16/2021	\$43.40	\$45.22	-4.11%	-1.01%	-1.06%	-2.02%	-2.09%	-0.19
12/17/2021	\$42.91	\$43.40	-1.15%	-0.63%	2.58%	1.46%	-2.61%	-0.24
12/20/2021	\$36.55	\$42.91	-16.05%	-1.24%	-0.90%	-2.36%	-13.69%	-1.25
12/21/2021	\$43.03	\$36.55	16.34%	1.97%	0.66%	4.88%	11.46%	1.05
12/22/2021	\$43.31	\$43.03	0.65%	0.95%	-0.37%	2.33%	-1.69%	-0.15
12/23/2021	\$43.81	\$43.31	1.13%	0.68%	0.89%	2.66%	-1.53%	-0.14
12/27/2021	\$46.21	\$43.81	5.35%	1.20%	-1.46%	2.04%	3.32%	0.30
12/28/2021	\$43.77	\$46.21	-5.43%	-0.24%	-0.74%	-0.41%	-5.03%	-0.46
12/29/2021	\$42.46	\$43.77	-3.05%	0.06%	0.41%	1.01%	-4.06%	-0.37
12/30/2021	\$43.47	\$42.46	2.36%	-0.10%	0.51%	0.74%	1.62%	0.15
12/31/2021	\$43.23	\$43.47	-0.56%	-0.24%	-0.87%	-0.45%	-0.11%	-0.01
1/3/2022	\$47.22	\$43.23	8.84%	0.61%	0.70%	2.41%	6.43%	0.59
1/4/2022	\$47.44	\$47.22	0.46%	-0.24%	-2.49%	-1.46%	1.91%	0.17
1/5/2022	\$49.00	\$47.44	3.25%	-2.21%	-3.94%	-6.64%	9.89%	0.90
1/6/2022	\$48.60	\$49.00	-0.83%	0.02%	-0.04%	0.69%	-1.52%	-0.14
1/7/2022	\$47.52	\$48.60	-2.24%	-0.42%	-0.94%	-0.74%	-1.50%	-0.14
1/10/2022	\$47.55	\$47.52	0.06%	-0.19%	1.04%	0.91%	-0.85%	-0.08
1/11/2022	\$49.26	\$47.55	3.52%	1.08%	1.15%	3.64%	-0.12%	-0.01
1/12/2022	\$48.00	\$49.26	-2.58%	0.18%	-1.53%	0.19%	-2.76%	-0.25
1/13/2022	\$45.28	\$48.00	-5.83%	-1.45%	-2.29%	-3.85%	-1.99%	-0.18
1/14/2022	\$45.29	\$45.28	0.02%	0.02%	0.92%	1.31%	-1.28%	-0.12
1/18/2022	\$41.24	\$45.29	-9.37%	-1.95%	-3.93%	-6.13%	-3.24%	-0.30
1/19/2022	\$40.62	\$41.24	-1.50%	-0.94%	-1.05%	-2.09%	0.59%	0.06
1/20/2022	\$36.87	\$40.62	-9.69%	-1.11%	-1.14%	-2.50%	-7.19%	-0.67

**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
1/21/2022	\$35.66	\$36.87	-3.34%	-2.01%	-1.59%	-4.80%	1.46%	0.14
1/24/2022	\$38.45	\$35.66	7.52%	0.42%	0.84%	1.91%	5.61%	0.52
1/25/2022	\$39.28	\$38.45	2.13%	-1.25%	-1.42%	-3.09%	5.22%	0.49
1/26/2022	\$38.54	\$39.28	-1.90%	-0.36%	-1.17%	-1.14%	-0.76%	-0.07
1/27/2022	\$36.94	\$38.54	-4.25%	-0.81%	-1.82%	-2.69%	-1.56%	-0.15
1/28/2022	\$38.44	\$36.94	3.98%	2.22%	3.24%	7.57%	-3.59%	-0.34
1/31/2022	\$41.86	\$38.44	8.54%	2.22%	2.82%	7.27%	1.27%	0.12
2/1/2022	\$43.61	\$41.86	4.09%	0.85%	1.50%	3.13%	0.96%	0.09
2/2/2022	\$43.35	\$43.61	-0.60%	0.47%	-1.24%	-0.11%	-0.48%	-0.06
2/3/2022	\$42.83	\$43.35	-1.20%	-2.36%	-2.18%	-5.40%	4.20%	0.51
2/4/2022	\$45.19	\$42.83	5.35%	0.72%	0.44%	1.42%	3.92%	0.49
2/7/2022	\$44.40	\$45.19	-1.75%	-0.18%	1.01%	0.73%	-2.49%	-0.33
2/8/2022	\$44.40	\$44.40	0.00%	0.91%	0.09%	1.66%	-1.66%	-0.22
2/9/2022	\$46.42	\$44.40	4.46%	1.61%	2.49%	4.95%	-0.49%	-0.07
2/10/2022	\$50.74	\$46.42	8.89%	-1.64%	-2.43%	-4.73%	13.61%	1.80 *
2/11/2022	\$49.29	\$50.74	-2.90%	-1.78%	-0.96%	-3.40%	0.50%	0.07
2/14/2022	\$46.97	\$49.29	-4.82%	-0.41%	-1.81%	-2.00%	-2.82%	-0.37
2/15/2022	\$47.52	\$46.97	1.16%	1.75%	2.62%	5.17%	-4.00%	-0.53
2/16/2022	\$47.05	\$47.52	-0.99%	0.03%	-0.32%	-0.05%	-0.94%	-0.12
2/17/2022	\$43.99	\$47.05	-6.74%	-2.15%	-2.74%	-5.46%	-1.28%	-0.17
2/18/2022	\$44.02	\$43.99	0.07%	-0.83%	-1.21%	-2.18%	2.25%	0.30
2/22/2022	\$40.43	\$44.02	-8.49%	-1.13%	-0.48%	-1.98%	-6.51%	-0.86
2/23/2022	\$37.45	\$40.43	-7.66%	-1.82%	-2.09%	-4.49%	-3.16%	-0.42
2/24/2022	\$40.72	\$37.45	8.37%	1.60%	2.13%	4.44%	3.93%	0.52
2/25/2022	\$41.22	\$40.72	1.21%	2.19%	1.51%	5.03%	-3.81%	-0.50
2/28/2022	\$41.11	\$41.22	-0.27%	-0.04%	-0.37%	-0.26%	-0.01%	0.00
3/1/2022	\$39.07	\$41.11	-5.08%	-1.51%	-0.56%	-2.85%	-2.23%	-0.29
3/2/2022	\$39.57	\$39.07	1.26%	1.76%	0.78%	3.71%	-2.44%	-0.32
3/3/2022	\$36.18	\$39.57	-8.97%	-0.81%	-1.66%	-2.67%	-6.29%	-0.83
3/4/2022	\$36.30	\$36.18	0.34%	-1.02%	-1.33%	-2.73%	3.08%	0.41
3/7/2022	\$33.82	\$36.30	-7.08%	-2.96%	-1.08%	-5.73%	-1.35%	-0.18
3/8/2022	\$34.45	\$33.82	1.84%	-0.44%	0.30%	-0.37%	2.21%	0.29
3/9/2022	\$36.36	\$34.45	5.39%	2.59%	3.12%	7.27%	-1.88%	-0.25
3/10/2022	\$36.57	\$36.36	0.60%	-0.42%	-0.94%	-1.43%	2.02%	0.27
3/11/2022	\$35.20	\$36.57	-3.83%	-1.38%	-1.77%	-3.76%	-0.07%	-0.01
3/14/2022	\$31.86	\$35.20	-9.98%	-1.06%	-1.08%	-2.61%	-7.37%	-0.98
3/15/2022	\$33.69	\$31.86	5.59%	1.89%	1.31%	4.52%	1.07%	0.14
3/16/2022	\$35.93	\$33.69	6.44%	2.51%	3.62%	7.70%	-1.26%	-0.17
3/17/2022	\$37.93	\$35.93	5.41%	1.38%	2.18%	4.31%	1.10%	0.15
3/18/2022	\$37.83	\$37.93	-0.28%	1.22%	1.53%	3.44%	-3.72%	-0.50
3/21/2022	\$36.90	\$37.83	-2.49%	-0.17%	-1.37%	-1.41%	-1.08%	-0.14
3/22/2022	\$37.67	\$36.90	2.08%	1.17%	2.09%	3.84%	-1.75%	-0.23
3/23/2022	\$38.75	\$37.67	2.81%	-1.19%	-2.13%	-3.77%	6.58%	0.88
3/24/2022	\$39.47	\$38.75	1.85%	1.30%	1.36%	3.36%	-1.52%	-0.20
3/25/2022	\$39.08	\$39.47	-0.99%	0.31%	-1.63%	-0.75%	-0.23%	-0.03
3/28/2022	\$38.70	\$39.08	-0.97%	0.61%	0.49%	1.58%	-2.55%	-0.34
3/29/2022	\$38.67	\$38.70	-0.09%	1.46%	2.66%	4.74%	-4.82%	-0.65
3/30/2022	\$37.59	\$38.67	-2.85%	-0.77%	-1.30%	-2.21%	-0.64%	-0.09
3/31/2022	\$36.28	\$37.59	-3.53%	-1.46%	-0.34%	-2.68%	-0.85%	-0.11
4/1/2022	\$36.78	\$36.28	1.36%	0.45%	2.28%	2.62%	-1.25%	-0.17
4/4/2022	\$37.15	\$36.78	1.00%	0.83%	1.23%	2.51%	-1.50%	-0.20
4/5/2022	\$30.30	\$37.15	-20.38%	-1.49%	-1.67%	-3.75%	-16.63%	-2.24 **
4/6/2022	\$28.35	\$30.30	-6.67%	-1.13%	0.26%	-1.88%	-4.79%	-0.64
4/7/2022	\$27.17	\$28.35	-4.22%	0.25%	0.83%	1.12%	-5.34%	-0.71
4/8/2022	\$26.25	\$27.17	-3.46%	-0.32%	-0.29%	-0.80%	-2.66%	-0.35
4/11/2022	\$25.39	\$26.25	-3.32%	-1.45%	-2.17%	-4.21%	0.89%	0.12
4/12/2022	\$25.48	\$25.39	0.35%	-0.27%	-0.53%	-0.81%	1.15%	0.15

## Exhibit-27

## Cassava Synthetic Stock Daily Event Study Results

## Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t -statistic
4/13/2022	\$26.38	\$25.48	3.45%	1.33%	2.64%	4.45%	-1.00%	-0.13
4/14/2022	\$25.58	\$26.38	-3.06%	-1.18%	-1.13%	-2.97%	-0.08%	-0.01
4/18/2022	\$24.65	\$25.58	-3.73%	-0.21%	-2.90%	-2.22%	-1.51%	-0.20
4/19/2022	\$21.71	\$24.65	-12.67%	1.62%	0.80%	3.85%	-16.52%	-2.21 **
4/20/2022	\$19.76	\$21.71	-9.41%	-0.09%	0.26%	0.09%	-9.51%	-1.26
4/21/2022	\$17.89	\$19.76	-9.94%	-1.70%	-2.36%	-4.74%	-5.20%	-0.69
4/22/2022	\$18.37	\$17.89	2.64%	-2.67%	-2.27%	-6.63%	9.27%	1.23
4/25/2022	\$19.77	\$18.37	7.34%	0.53%	1.41%	1.93%	5.41%	0.72
4/26/2022	\$21.04	\$19.77	6.21%	-2.87%	-3.70%	-7.65%	13.86%	1.83 *
4/27/2022	\$20.42	\$21.04	-2.98%	0.13%	-0.36%	-0.07%	-2.91%	-0.39
4/28/2022	\$20.34	\$20.42	-0.39%	2.27%	-0.27%	3.59%	-3.98%	-0.53
4/29/2022	\$20.28	\$20.34	-0.29%	-3.41%	-2.27%	-7.43%	7.14%	0.94
5/2/2022	\$20.02	\$20.28	-1.28%	0.59%	1.39%	1.98%	-3.26%	-0.43
5/3/2022	\$20.36	\$20.02	1.66%	0.51%	0.47%	1.13%	0.54%	0.07
5/4/2022	\$20.28	\$20.36	-0.39%	2.76%	1.70%	5.54%	-5.93%	-0.79
5/5/2022	\$19.97	\$20.28	-1.52%	-3.70%	-4.12%	-8.75%	7.23%	0.96
5/6/2022	\$19.44	\$19.97	-2.71%	-0.84%	-3.91%	-4.45%	1.74%	0.23
5/9/2022	\$18.27	\$19.44	-6.23%	-3.61%	-5.05%	-9.33%	3.10%	0.41
5/10/2022	\$18.94	\$18.27	3.61%	0.13%	2.63%	2.19%	1.43%	0.19
5/11/2022	\$16.62	\$18.94	-13.06%	-1.73%	-3.68%	-5.32%	-7.74%	-1.02
5/12/2022	\$16.89	\$16.62	1.63%	0.15%	2.89%	2.50%	-0.87%	-0.11
5/13/2022	\$18.49	\$16.89	9.05%	2.66%	3.31%	6.45%	2.60%	0.34
5/16/2022	\$20.04	\$18.49	8.07%	-0.47%	0.57%	-0.28%	8.35%	1.10
5/17/2022	\$21.77	\$20.04	8.28%	2.03%	2.97%	5.28%	3.00%	0.39
5/18/2022	\$21.39	\$21.77	-1.78%	-3.84%	-2.92%	-8.08%	6.30%	0.83
5/19/2022	\$23.05	\$21.39	7.48%	-0.21%	1.24%	0.68%	6.80%	0.90
5/20/2022	\$24.21	\$23.05	4.92%	0.00%	0.80%	0.66%	4.26%	0.56
5/23/2022	\$26.14	\$24.21	7.64%	1.63%	0.59%	2.65%	5.00%	0.66
5/24/2022	\$24.04	\$26.14	-8.38%	-1.07%	-1.59%	-2.82%	-5.56%	-0.73
5/25/2022	\$25.52	\$24.04	6.01%	1.11%	0.51%	2.00%	4.01%	0.53
5/26/2022	\$24.60	\$25.52	-3.70%	1.96%	0.59%	3.28%	-6.98%	-0.92
5/27/2022	\$25.64	\$24.60	4.16%	2.42%	2.72%	5.56%	-1.39%	-0.18
5/31/2022	\$29.17	\$25.64	12.87%	-0.70%	-2.29%	-2.98%	15.85%	2.08 **
6/1/2022	\$25.70	\$29.17	-12.65%	-0.70%	-1.04%	-1.81%	-10.84%	-1.41
6/2/2022	\$26.24	\$25.70	2.08%	2.01%	0.34%	2.94%	-0.86%	-0.11
6/3/2022	\$27.73	\$26.24	5.50%	-1.55%	0.46%	-1.87%	7.37%	0.96
6/6/2022	\$26.71	\$27.73	-3.75%	0.29%	-1.65%	-1.11%	-2.64%	-0.34
6/7/2022	\$27.53	\$26.71	3.05%	0.98%	2.70%	3.45%	-0.41%	-0.05
6/8/2022	\$26.91	\$27.53	-2.27%	-1.05%	0.40%	-1.13%	-1.14%	-0.15
6/9/2022	\$24.85	\$26.91	-7.99%	-2.39%	-3.78%	-6.42%	-1.56%	-0.20
6/10/2022	\$26.27	\$24.85	5.55%	-2.86%	-3.03%	-6.42%	11.97%	1.56
6/13/2022	\$21.38	\$26.27	-20.59%	-4.15%	-4.09%	-8.53%	-12.06%	-1.57
6/14/2022	\$23.06	\$21.38	7.56%	-0.35%	0.26%	-0.35%	7.91%	1.03
6/15/2022	\$25.15	\$23.06	8.70%	1.49%	2.32%	3.91%	4.79%	0.62
6/16/2022	\$24.59	\$25.15	-2.28%	-3.48%	-2.23%	-6.67%	4.39%	0.57
6/17/2022	\$25.32	\$24.59	2.94%	0.40%	3.90%	4.17%	-1.22%	-0.16
6/21/2022	\$24.59	\$25.32	-2.92%	2.23%	2.27%	4.77%	-7.70%	-1.00
6/22/2022	\$27.17	\$24.59	9.97%	-0.22%	1.39%	0.87%	9.09%	1.19
6/23/2022	\$28.83	\$27.17	5.94%	0.91%	3.86%	4.70%	1.24%	0.16
6/24/2022	\$28.67	\$28.83	-0.57%	2.94%	1.70%	4.76%	-5.33%	-0.70
6/27/2022	\$28.82	\$28.67	0.53%	-0.21%	-0.22%	-0.64%	1.17%	0.15
6/28/2022	\$27.61	\$28.82	-4.28%	-1.89%	-2.39%	-4.56%	0.28%	0.04
6/29/2022	\$27.90	\$27.61	1.03%	-0.27%	0.75%	0.30%	0.73%	0.09
6/30/2022	\$26.33	\$27.90	-5.76%	-0.90%	-0.79%	-1.92%	-3.85%	-0.50
7/1/2022	\$24.85	\$26.33	-5.81%	1.09%	2.15%	3.13%	-8.93%	-1.17
7/5/2022	\$24.69	\$24.85	-0.65%	0.20%	2.16%	2.07%	-2.72%	-0.35
7/6/2022	\$22.81	\$24.69	-7.91%	0.07%	0.24%	0.03%	-7.94%	-1.03

## Exhibit-27

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
7/7/2022	\$23.32	\$22.81	2.19%	1.68%	2.38%	3.76%	-1.57%	-0.20
7/8/2022	\$22.80	\$23.32	-2.23%	-0.08%	0.50%	0.06%	-2.28%	-0.30
7/11/2022	\$21.72	\$22.80	-4.84%	-1.33%	-1.95%	-3.71%	-1.13%	-0.15
7/12/2022	\$21.64	\$21.72	-0.40%	-0.81%	-0.17%	-1.44%	1.04%	0.14
7/13/2022	\$21.87	\$21.64	1.06%	-0.34%	0.03%	-0.74%	1.80%	0.24
7/14/2022	\$21.84	\$21.87	-0.14%	-0.56%	-1.68%	-2.65%	2.52%	0.33
7/15/2022	\$22.46	\$21.84	2.82%	1.84%	1.80%	3.42%	-0.59%	-0.08
7/18/2022	\$22.09	\$22.46	-1.67%	-0.56%	-2.36%	-3.21%	1.54%	0.20
7/19/2022	\$22.85	\$22.09	3.38%	2.70%	2.79%	5.36%	-1.97%	-0.26
7/20/2022	\$22.84	\$22.85	-0.08%	0.78%	0.03%	0.58%	-0.66%	-0.09
7/21/2022	\$22.38	\$22.84	-2.00%	0.93%	0.18%	0.82%	-2.81%	-0.38
7/22/2022	\$21.85	\$22.38	-2.39%	-1.05%	-2.28%	-3.72%	1.33%	0.18
7/25/2022	\$20.45	\$21.85	-6.64%	0.20%	0.33%	0.03%	-6.67%	-0.91
7/26/2022	\$20.52	\$20.45	0.32%	-1.19%	0.06%	-1.61%	1.93%	0.26
7/27/2022	\$17.84	\$20.52	-14.00%	2.50%	1.03%	2.95%	-16.95%	-2.31 **
7/28/2022	\$16.07	\$17.84	-10.45%	1.24%	-0.58%	-0.20%	-10.25%	-1.39
7/29/2022	\$15.62	\$16.07	-2.82%	1.33%	-0.62%	-0.31%	-2.51%	-0.34
8/1/2022	\$17.05	\$15.62	8.76%	-0.22%	-1.72%	-2.68%	11.44%	1.54
8/2/2022	\$18.43	\$17.05	7.78%	-0.53%	0.66%	-0.07%	7.85%	1.12
8/3/2022	\$17.68	\$18.43	-4.17%	1.49%	3.87%	4.79%	-8.96%	-1.28
8/4/2022	\$16.39	\$17.68	-7.58%	-0.05%	2.35%	2.12%	-9.70%	-1.39
8/5/2022	\$16.68	\$16.39	1.76%	-0.04%	1.44%	0.93%	0.83%	0.12
8/8/2022	\$18.27	\$16.68	9.12%	0.12%	0.92%	0.42%	8.70%	1.25
8/9/2022	\$18.97	\$18.27	3.78%	-0.64%	-1.70%	-2.70%	6.48%	0.93
8/10/2022	\$18.98	\$18.97	0.05%	2.24%	2.17%	3.25%	-3.19%	-0.46
8/11/2022	\$18.94	\$18.98	-0.23%	-0.02%	-1.55%	-2.07%	1.83%	0.26
8/12/2022	\$19.58	\$18.94	3.33%	1.67%	1.18%	1.79%	1.54%	0.22
8/15/2022	\$19.09	\$19.58	-2.52%	0.28%	1.64%	1.17%	-3.69%	-0.53
8/16/2022	\$19.14	\$19.09	0.27%	0.19%	-1.35%	-1.77%	2.04%	0.29
8/17/2022	\$24.61	\$19.14	25.14%	-0.92%	-2.10%	-3.28%	28.42%	4.08 ***
8/18/2022	\$25.32	\$24.61	2.84%	0.27%	-1.20%	-1.39%	4.23%	0.59
8/19/2022	\$24.58	\$25.32	-2.98%	-1.47%	-0.78%	-2.21%	-0.77%	-0.11
8/22/2022	\$23.57	\$24.58	-4.20%	-2.05%	-1.57%	-3.35%	-0.85%	-0.12
8/23/2022	\$24.41	\$23.57	3.49%	-0.07%	0.05%	-0.47%	3.96%	0.55
8/24/2022	\$26.69	\$24.41	8.96%	0.39%	1.36%	0.97%	7.99%	1.12
8/25/2022	\$26.26	\$26.69	-1.65%	1.41%	0.14%	0.69%	-2.34%	-0.33
8/26/2022	\$28.39	\$26.26	7.80%	-3.24%	-3.41%	-5.74%	13.54%	2.01 **
8/29/2022	\$25.01	\$28.39	-12.68%	-0.65%	-0.65%	-1.19%	-11.49%	-1.70 *
8/30/2022	\$25.13	\$25.01	0.51%	-1.15%	-0.96%	-1.82%	2.32%	0.35
8/31/2022	\$24.93	\$25.13	-0.80%	-0.72%	0.21%	-0.46%	-0.34%	-0.05
9/1/2022	\$24.40	\$24.93	-2.15%	-0.11%	1.87%	1.36%	-3.51%	-0.53
9/2/2022	\$23.74	\$24.40	-2.75%	-0.86%	-1.61%	-2.14%	-0.61%	-0.09
9/6/2022	\$26.64	\$23.74	11.53%	-0.49%	-1.71%	-1.96%	13.49%	2.04 **
9/7/2022	\$27.90	\$26.64	4.62%	1.81%	2.89%	3.63%	0.99%	0.15
9/8/2022	\$28.25	\$27.90	1.25%	0.74%	3.19%	3.09%	-1.84%	-0.28
9/9/2022	\$31.40	\$28.25	10.56%	1.65%	0.93%	1.96%	8.60%	1.29
9/12/2022	\$31.69	\$31.40	0.92%	1.07%	0.20%	1.00%	-0.08%	-0.01
9/13/2022	\$29.60	\$31.69	-6.83%	-4.14%	-4.23%	-6.74%	-0.09%	-0.01
9/14/2022	\$31.19	\$29.60	5.25%	0.40%	0.90%	0.98%	4.27%	0.64
9/15/2022	\$30.07	\$31.19	-3.67%	-1.03%	0.26%	-0.64%	-3.04%	-0.46
9/16/2022	\$29.60	\$30.07	-1.57%	-0.96%	-0.98%	-1.53%	-0.03%	0.00
9/19/2022	\$28.77	\$29.60	-2.85%	0.69%	-1.00%	-0.14%	-2.71%	-0.41
9/20/2022	\$37.00	\$28.77	25.16%	-1.23%	-0.73%	-1.65%	26.81%	4.08 ***
9/21/2022	\$35.67	\$37.00	-3.68%	-1.61%	-2.45%	-3.06%	-0.62%	-0.09
9/22/2022	\$48.55	\$35.67	30.83%	-1.15%	-0.52%	-1.30%	32.12%	4.74 ***
9/23/2022	\$39.49	\$48.55	-20.65%	-1.93%	-1.41%	-2.27%	-18.39%	-2.60 ***
9/26/2022	\$42.94	\$39.49	8.38%	-1.15%	-1.67%	-1.95%	10.33%	1.47

**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t -statistic
9/27/2022	\$43.71	\$42.94	1.77%	-0.07%	1.50%	1.26%	0.51%	0.07
9/28/2022	\$41.58	\$43.71	-4.99%	2.14%	4.21%	4.79%	-9.78%	-1.39
9/29/2022	\$40.89	\$41.58	-1.66%	-2.12%	-1.79%	-2.57%	0.91%	0.13
9/30/2022	\$39.71	\$40.89	-2.95%	-1.24%	-0.23%	-0.85%	-2.09%	-0.30
10/3/2022	\$39.12	\$39.71	-1.49%	2.51%	1.43%	2.69%	-4.17%	-0.59
10/4/2022	\$39.42	\$39.12	0.76%	3.19%	2.93%	4.14%	-3.39%	-0.48
10/5/2022	\$38.72	\$39.42	-1.79%	-0.32%	0.01%	-0.11%	-1.68%	-0.24
10/6/2022	\$40.12	\$38.72	3.55%	-0.94%	-0.54%	-0.87%	4.42%	0.63
10/7/2022	\$37.79	\$40.12	-5.97%	-2.78%	-2.67%	-3.39%	-2.59%	-0.37
10/10/2022	\$34.14	\$37.79	-10.17%	-0.82%	-0.67%	-0.87%	-9.29%	-1.32
10/11/2022	\$33.62	\$34.14	-1.52%	-0.64%	0.69%	0.12%	-1.64%	-0.23
10/12/2022	\$33.77	\$33.62	0.43%	-0.29%	0.49%	0.20%	0.23%	0.03
10/13/2022	\$35.14	\$33.77	4.00%	2.32%	1.93%	2.84%	1.16%	0.16
10/14/2022	\$34.62	\$35.14	-1.49%	-2.40%	-1.54%	-2.53%	1.04%	0.15
10/17/2022	\$33.97	\$34.62	-1.91%	2.64%	2.04%	3.16%	-5.07%	-0.72
10/18/2022	\$32.95	\$33.97	-3.04%	1.15%	0.06%	0.87%	-3.91%	-0.56
10/19/2022	\$31.39	\$32.95	-4.87%	-0.90%	-3.35%	-2.74%	-2.13%	-0.30
10/20/2022	\$32.24	\$31.39	2.70%	-0.75%	-0.57%	-0.79%	3.49%	0.50
10/21/2022	\$33.21	\$32.24	2.95%	2.19%	2.56%	3.21%	-0.26%	-0.04
10/24/2022	\$32.25	\$33.21	-2.95%	0.87%	0.86%	1.22%	-4.17%	-0.59
10/25/2022	\$32.58	\$32.25	1.03%	1.81%	1.68%	2.34%	-1.32%	-0.19
10/26/2022	\$33.72	\$32.58	3.44%	-0.46%	1.43%	0.76%	2.68%	0.38
10/27/2022	\$33.14	\$33.72	-1.71%	-0.41%	-1.45%	-1.17%	-0.54%	-0.08
10/28/2022	\$34.93	\$33.14	5.26%	2.11%	4.05%	4.12%	1.14%	0.16
10/31/2022	\$34.61	\$34.93	-0.94%	-0.60%	-0.86%	-0.85%	-0.10%	-0.01
11/1/2022	\$34.09	\$34.61	-1.50%	-0.22%	0.87%	0.60%	-2.09%	-0.30
11/2/2022	\$34.10	\$34.09	0.03%	-2.54%	-1.45%	-2.44%	2.47%	0.35
11/3/2022	\$32.56	\$34.10	-4.62%	-0.89%	0.10%	-0.48%	-4.14%	-0.60
11/4/2022	\$33.51	\$32.56	2.88%	1.31%	0.16%	0.94%	1.94%	0.28
11/7/2022	\$32.20	\$33.51	-4.01%	0.81%	0.48%	0.60%	-4.61%	-0.72
11/8/2022	\$32.99	\$32.20	2.44%	0.53%	0.91%	0.87%	1.57%	0.25
11/9/2022	\$32.73	\$32.99	-0.80%	-2.14%	-1.24%	-1.96%	1.16%	0.18
11/10/2022	\$33.17	\$32.73	1.33%	5.38%	3.51%	4.81%	-3.48%	-0.55
11/11/2022	\$35.77	\$33.17	7.55%	1.05%	0.17%	0.30%	7.25%	1.15
11/14/2022	\$39.01	\$35.77	8.67%	-0.96%	0.27%	-0.10%	8.78%	1.39
11/15/2022	\$38.19	\$39.01	-2.11%	1.01%	0.37%	0.56%	-2.67%	-0.42
11/16/2022	\$33.28	\$38.19	-13.76%	-0.98%	-0.92%	-1.14%	-12.62%	-2.00 **
11/17/2022	\$32.98	\$33.28	-0.90%	-0.41%	-0.21%	-0.38%	-0.52%	-0.08
11/18/2022	\$31.92	\$32.98	-3.27%	0.42%	0.53%	0.66%	-3.93%	-0.64
11/21/2022	\$31.02	\$31.92	-2.87%	-0.46%	-0.63%	-0.71%	-2.16%	-0.35
11/22/2022	\$31.40	\$31.02	1.22%	1.32%	0.88%	1.16%	0.06%	0.01
11/23/2022	\$32.25	\$31.40	2.68%	0.59%	-0.41%	-0.28%	2.96%	0.48
11/25/2022	\$33.41	\$32.25	3.54%	0.04%	0.11%	0.11%	3.42%	0.56
11/28/2022	\$32.35	\$33.41	-3.25%	-1.58%	-0.67%	-1.07%	-2.18%	-0.36
11/29/2022	\$32.80	\$32.35	1.40%	-0.07%	-0.24%	-0.28%	1.68%	0.28
11/30/2022	\$33.18	\$32.80	1.14%	2.90%	3.19%	3.81%	-2.67%	-0.44
12/1/2022	\$32.58	\$33.18	-1.82%	0.02%	0.41%	0.39%	-2.21%	-0.36
12/2/2022	\$34.30	\$32.58	5.14%	-0.06%	1.21%	1.16%	3.98%	0.66
12/5/2022	\$32.02	\$34.30	-6.88%	-1.96%	-2.15%	-2.49%	-4.39%	-0.72
12/6/2022	\$31.86	\$32.02	-0.47%	-1.42%	-1.65%	-1.90%	1.42%	0.23
12/7/2022	\$35.18	\$31.86	9.91%	-0.19%	0.96%	0.90%	9.01%	1.48
12/8/2022	\$36.81	\$35.18	4.51%	0.73%	1.04%	1.21%	3.29%	0.54
12/9/2022	\$37.05	\$36.81	0.65%	-0.75%	-2.13%	-2.14%	2.79%	0.46
12/12/2022	\$39.73	\$37.05	6.99%	1.29%	0.91%	1.25%	5.74%	0.94
12/13/2022	\$41.77	\$39.73	5.01%	0.73%	1.49%	1.67%	3.34%	0.55
12/14/2022	\$42.08	\$41.77	0.74%	-0.55%	0.66%	0.57%	0.17%	0.03
12/15/2022	\$37.71	\$42.08	-10.98%	-2.44%	-1.83%	-2.24%	-8.73%	-1.43

**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
12/16/2022	\$36.79	\$37.71	-2.46%	-1.04%	-0.89%	-1.05%	-1.41%	-0.23
12/19/2022	\$36.02	\$36.79	-2.11%	-0.97%	-1.91%	-1.92%	-0.19%	-0.03
12/20/2022	\$35.76	\$36.02	-0.74%	0.19%	1.28%	1.37%	-2.11%	-0.35
12/21/2022	\$35.01	\$35.76	-2.10%	1.45%	1.26%	1.76%	-3.86%	-0.64
12/22/2022	\$31.49	\$35.01	-10.59%	-1.41%	0.00%	-0.11%	-10.48%	-1.76 *
12/23/2022	\$30.03	\$31.49	-4.75%	0.55%	-1.52%	-1.28%	-3.47%	-0.58
12/27/2022	\$26.29	\$30.03	-13.30%	-0.39%	-2.24%	-2.16%	-11.14%	-1.86 *
12/28/2022	\$25.64	\$26.29	-2.51%	-1.24%	-0.30%	-0.45%	-2.06%	-0.34
12/29/2022	\$26.72	\$25.64	4.12%	1.82%	2.10%	2.41%	1.71%	0.28
12/30/2022	\$27.27	\$26.72	2.05%	-0.25%	0.32%	0.33%	1.72%	0.29
1/3/2023	\$25.72	\$27.27	-5.85%	-0.39%	-0.93%	-1.02%	-4.83%	-0.80
1/4/2023	\$27.68	\$25.72	7.33%	0.95%	1.11%	1.28%	6.05%	1.00
1/5/2023	\$28.13	\$27.68	1.59%	-1.10%	0.21%	0.11%	1.48%	0.25
1/6/2023	\$27.51	\$28.13	-2.21%	2.20%	1.37%	1.64%	-3.84%	-0.64
1/9/2023	\$27.82	\$27.51	1.11%	0.11%	-2.33%	-2.82%	3.94%	0.66
1/10/2023	\$30.21	\$27.82	8.23%	0.73%	1.84%	2.09%	6.15%	1.02
1/11/2023	\$34.41	\$30.21	13.04%	1.25%	0.36%	0.43%	12.61%	2.10 **
1/12/2023	\$33.23	\$34.41	-3.52%	0.57%	1.18%	1.42%	-4.94%	-0.81
1/13/2023	\$33.23	\$33.23	0.02%	0.43%	0.76%	0.90%	-0.88%	-0.15
1/17/2023	\$33.68	\$33.23	1.34%	-0.11%	-0.06%	-0.08%	1.42%	0.23
1/18/2023	\$33.32	\$33.68	-1.08%	-1.43%	-0.69%	-0.90%	-0.17%	-0.03
1/19/2023	\$32.24	\$33.32	-3.30%	-0.75%	-1.03%	-1.20%	-2.09%	-0.35
1/20/2023	\$33.96	\$32.24	5.19%	1.79%	0.91%	1.23%	3.97%	0.65
1/23/2023	\$35.60	\$33.96	4.73%	1.17%	0.61%	0.87%	3.86%	0.64
1/24/2023	\$28.63	\$35.60	-21.81%	-0.11%	0.37%	0.48%	-22.29%	-3.69 ***
1/25/2023	\$26.76	\$28.63	-6.73%	0.03%	0.05%	0.16%	-6.89%	-1.14
1/26/2023	\$27.12	\$26.76	1.31%	1.03%	0.06%	0.26%	1.05%	0.17
1/27/2023	\$28.14	\$27.12	3.72%	0.35%	0.03%	0.13%	3.59%	0.59
1/30/2023	\$26.44	\$28.14	-6.25%	-1.31%	-1.56%	-1.77%	-4.48%	-0.74
1/31/2023	\$27.12	\$26.44	2.55%	1.54%	1.18%	1.53%	1.01%	0.17
2/1/2023	\$27.96	\$27.12	3.04%	1.11%	-0.18%	0.07%	2.98%	0.49
2/2/2023	\$30.59	\$27.96	8.99%	1.37%	0.00%	0.29%	8.70%	1.44
2/3/2023	\$30.01	\$30.59	-1.91%	-1.07%	-0.38%	-0.55%	-1.36%	-0.22
2/6/2023	\$28.69	\$30.01	-4.49%	-0.72%	-0.54%	-0.63%	-3.85%	-0.63
2/7/2023	\$28.86	\$28.69	0.58%	1.14%	0.36%	0.68%	-0.10%	-0.02
2/8/2023	\$28.66	\$28.86	-0.71%	-1.04%	-2.38%	-2.54%	1.83%	0.30
2/9/2023	\$27.78	\$28.66	-3.10%	-0.89%	-0.35%	-0.51%	-2.59%	-0.43
2/10/2023	\$27.34	\$27.78	-1.60%	0.15%	0.33%	0.39%	-1.99%	-0.33
2/13/2023	\$26.00	\$27.34	-5.04%	1.08%	1.03%	1.28%	-6.31%	-1.04
2/14/2023	\$25.25	\$26.00	-2.92%	0.09%	-0.12%	-0.15%	-2.77%	-0.46
2/15/2023	\$25.60	\$25.25	1.37%	0.44%	-0.07%	-0.03%	1.41%	0.23
2/16/2023	\$25.64	\$25.60	0.15%	-1.28%	-1.40%	-1.74%	1.89%	0.31
2/17/2023	\$26.30	\$25.64	2.54%	-0.29%	1.28%	1.17%	1.37%	0.23
2/21/2023	\$24.57	\$26.30	-6.78%	-2.07%	-2.50%	-2.99%	-3.79%	-0.63
2/22/2023	\$24.53	\$24.57	-0.16%	-0.06%	0.12%	0.08%	-0.24%	-0.04
2/23/2023	\$24.78	\$24.53	1.01%	0.49%	-0.55%	-0.46%	1.47%	0.24
2/24/2023	\$24.19	\$24.78	-2.43%	-1.02%	-1.95%	-2.17%	-0.27%	-0.04
2/27/2023	\$24.02	\$24.19	-0.70%	0.33%	0.44%	0.54%	-1.24%	-0.21
2/28/2023	\$23.88	\$24.02	-0.57%	-0.26%	0.22%	0.17%	-0.73%	-0.12
3/1/2023	\$24.34	\$23.88	1.88%	-0.32%	0.58%	0.51%	1.37%	0.23
3/2/2023	\$24.68	\$24.34	1.40%	0.65%	-0.18%	-0.04%	1.44%	0.24
3/3/2023	\$25.74	\$24.68	4.20%	1.54%	1.43%	1.73%	2.46%	0.41
3/6/2023	\$25.47	\$25.74	-1.04%	-0.18%	-1.06%	-1.05%	0.01%	0.00
3/7/2023	\$24.48	\$25.47	-3.96%	-1.47%	-1.22%	-1.43%	-2.52%	-0.42
3/8/2023	\$24.22	\$24.48	-1.09%	0.13%	-0.75%	-0.66%	-0.43%	-0.07
3/9/2023	\$24.18	\$24.22	-0.18%	-1.95%	-1.97%	-2.22%	2.05%	0.34
3/10/2023	\$24.14	\$24.18	-0.14%	-1.66%	-1.45%	-1.64%	1.50%	0.25

## Exhibit-27

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t -statistic
3/13/2023	\$24.86	\$24.14	2.94%	-0.31%	2.70%	2.66%	0.29%	0.05
3/14/2023	\$25.20	\$24.86	1.34%	1.57%	1.13%	1.41%	-0.07%	-0.01
3/15/2023	\$25.17	\$25.20	-0.13%	-0.93%	-0.44%	-0.52%	0.39%	0.07
3/16/2023	\$25.99	\$25.17	3.23%	1.62%	0.56%	0.86%	2.37%	0.40
3/17/2023	\$25.59	\$25.99	-1.55%	-1.21%	-1.67%	-1.71%	0.16%	0.03
3/20/2023	\$25.41	\$25.59	-0.69%	0.87%	1.12%	1.27%	-1.96%	-0.33
3/21/2023	\$24.98	\$25.41	-1.71%	1.38%	-0.15%	0.09%	-1.80%	-0.30
3/22/2023	\$23.04	\$24.98	-8.11%	-1.66%	-2.10%	-2.17%	-5.94%	-1.00
3/23/2023	\$23.13	\$23.04	0.41%	0.18%	1.25%	1.28%	-0.87%	-0.15
3/24/2023	\$23.42	\$23.13	1.23%	0.47%	1.14%	1.21%	0.02%	0.00
3/27/2023	\$23.34	\$23.42	-0.33%	0.32%	0.27%	0.32%	-0.65%	-0.11
3/28/2023	\$22.80	\$23.34	-2.36%	-0.08%	0.13%	0.12%	-2.49%	-0.42
3/29/2023	\$23.08	\$22.80	1.23%	1.37%	1.24%	1.39%	-0.16%	-0.03
3/30/2023	\$23.29	\$23.08	0.90%	0.55%	-0.64%	-0.56%	1.47%	0.25
3/31/2023	\$23.43	\$23.29	0.62%	1.45%	1.40%	1.61%	-0.99%	-0.17
4/3/2023	\$23.39	\$23.43	-0.19%	0.31%	0.52%	0.58%	-0.77%	-0.13
4/4/2023	\$23.19	\$23.39	-0.85%	-0.66%	-0.75%	-0.80%	-0.05%	-0.01
4/5/2023	\$23.03	\$23.19	-0.69%	-0.41%	0.66%	0.66%	-1.35%	-0.23
4/6/2023	\$23.27	\$23.03	1.02%	0.31%	1.22%	1.30%	-0.27%	-0.05
4/10/2023	\$22.21	\$23.27	-4.65%	0.22%	-0.60%	-0.47%	-4.18%	-0.72
4/11/2023	\$22.64	\$22.21	1.92%	0.18%	0.15%	0.27%	1.65%	0.28
4/12/2023	\$22.22	\$22.64	-1.90%	-0.40%	-0.25%	-0.11%	-1.79%	-0.31
4/13/2023	\$22.79	\$22.22	2.55%	1.27%	2.13%	2.38%	0.17%	0.03
4/14/2023	\$22.60	\$22.79	-0.85%	-0.27%	-0.85%	-0.72%	-0.13%	-0.02
4/17/2023	\$23.77	\$22.60	5.06%	0.36%	0.95%	1.14%	3.92%	0.67
4/18/2023	\$23.74	\$23.77	-0.14%	0.07%	-0.50%	-0.35%	0.21%	0.04
4/19/2023	\$23.40	\$23.74	-1.45%	-0.05%	0.53%	0.73%	-2.18%	-0.37
4/20/2023	\$22.58	\$23.40	-3.54%	-0.58%	-0.81%	-0.66%	-2.87%	-0.49
4/21/2023	\$22.80	\$22.58	0.98%	0.06%	1.16%	1.39%	-0.41%	-0.07
4/24/2023	\$22.18	\$22.80	-2.76%	0.04%	-0.52%	-0.26%	-2.50%	-0.44
4/25/2023	\$21.24	\$22.18	-4.35%	-1.68%	-1.22%	-1.04%	-3.31%	-0.58
4/26/2023	\$20.93	\$21.24	-1.46%	-0.41%	-1.44%	-1.21%	-0.25%	-0.04
4/27/2023	\$21.94	\$20.93	4.69%	1.72%	0.40%	0.82%	3.87%	0.68
4/28/2023	\$22.65	\$21.94	3.22%	0.80%	0.73%	1.05%	2.17%	0.38
5/1/2023	\$22.64	\$22.65	-0.05%	-0.07%	0.95%	1.14%	-1.20%	-0.21
5/2/2023	\$21.52	\$22.64	-5.09%	-1.23%	-1.43%	-1.28%	-3.81%	-0.67
5/3/2023	\$21.58	\$21.52	0.28%	-0.52%	0.70%	0.81%	-0.53%	-0.09
5/4/2023	\$21.70	\$21.58	0.58%	-0.69%	-0.12%	0.03%	0.55%	0.10
5/5/2023	\$21.77	\$21.70	0.29%	1.86%	1.65%	2.16%	-1.87%	-0.33
5/8/2023	\$22.39	\$21.77	2.80%	0.08%	-0.79%	-0.44%	3.25%	0.57
5/9/2023	\$25.88	\$22.39	14.49%	-0.39%	0.15%	0.33%	14.16%	2.49 **
5/10/2023	\$26.24	\$25.88	1.40%	0.41%	0.40%	0.74%	0.67%	0.12
5/11/2023	\$27.10	\$26.24	3.21%	-0.26%	-0.76%	-0.46%	3.67%	0.65
5/12/2023	\$25.88	\$27.10	-4.59%	-0.19%	-0.33%	-0.04%	-4.55%	-0.80
5/15/2023	\$25.78	\$25.88	-0.40%	0.50%	1.34%	1.56%	-1.96%	-0.35
5/16/2023	\$24.58	\$25.78	-4.76%	-0.81%	-2.47%	-1.92%	-2.84%	-0.50
5/17/2023	\$24.63	\$24.58	0.20%	1.23%	0.33%	0.84%	-0.64%	-0.11
5/18/2023	\$23.99	\$24.63	-2.65%	0.84%	-0.42%	0.13%	-2.78%	-0.49
5/19/2023	\$23.58	\$23.99	-1.69%	-0.19%	0.86%	0.87%	-2.56%	-0.46
5/22/2023	\$24.52	\$23.58	3.91%	0.19%	0.63%	0.75%	3.15%	0.56
5/23/2023	\$24.60	\$24.52	0.33%	-1.05%	0.04%	-0.06%	0.38%	0.07
5/24/2023	\$24.54	\$24.60	-0.27%	-0.80%	-1.31%	-1.01%	0.74%	0.13
5/25/2023	\$23.65	\$24.54	-3.70%	0.49%	-2.07%	-1.29%	-2.41%	-0.43
5/26/2023	\$23.01	\$23.65	-2.73%	1.25%	0.12%	0.55%	-3.28%	-0.59
5/30/2023	\$22.26	\$23.01	-3.31%	-0.02%	-0.65%	-0.37%	-2.94%	-0.53
5/31/2023	\$22.11	\$22.26	-0.70%	-0.57%	0.55%	0.46%	-1.16%	-0.21
6/1/2023	\$21.97	\$22.11	-0.63%	1.01%	0.24%	0.54%	-1.17%	-0.21



**Exhibit-27**  
**Cassava Synthetic Stock Daily Event Study Results**  
 Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t -statistic
6/2/2023	\$22.57	\$21.97	2.71%	1.61%	1.74%	1.82%	0.89%	0.16
6/5/2023	\$22.23	\$22.57	-1.51%	-0.28%	0.40%	0.42%	-1.93%	-0.36
6/6/2023	\$22.67	\$22.23	1.96%	0.52%	-0.16%	0.05%	1.91%	0.35
6/7/2023	\$23.46	\$22.67	3.42%	-0.20%	-0.33%	-0.21%	3.63%	0.67
6/8/2023	\$23.92	\$23.46	1.92%	0.52%	0.47%	0.61%	1.31%	0.24
6/9/2023	\$23.65	\$23.92	-1.10%	0.01%	-0.59%	-0.33%	-0.77%	-0.14
6/12/2023	\$23.98	\$23.65	1.36%	0.85%	0.83%	0.97%	0.39%	0.07
6/13/2023	\$24.91	\$23.98	3.80%	0.75%	1.19%	1.22%	2.58%	0.48
6/14/2023	\$24.69	\$24.91	-0.85%	0.01%	-0.78%	-0.48%	-0.37%	-0.07
6/15/2023	\$24.45	\$24.69	-0.99%	1.16%	1.22%	1.24%	-2.24%	-0.42
6/16/2023	\$24.04	\$24.45	-1.69%	-0.38%	-0.37%	-0.13%	-1.55%	-0.30
6/20/2023	\$24.18	\$24.04	0.58%	-0.54%	-0.51%	-0.27%	0.85%	0.16
6/21/2023	\$24.64	\$24.18	1.86%	-0.47%	-0.43%	-0.20%	2.07%	0.40
6/22/2023	\$24.84	\$24.64	0.84%	0.18%	0.09%	0.24%	0.60%	0.12
6/23/2023	\$24.35	\$24.84	-2.01%	-0.85%	-1.25%	-0.81%	-1.20%	-0.23
6/26/2023	\$23.12	\$24.35	-5.17%	-0.27%	-1.27%	-0.73%	-4.44%	-0.86
6/27/2023	\$23.41	\$23.12	1.23%	1.16%	-1.14%	-0.35%	1.58%	0.30
6/28/2023	\$23.14	\$23.41	-1.17%	0.05%	0.51%	0.44%	-1.60%	-0.31
6/29/2023	\$23.16	\$23.14	0.10%	0.47%	-0.54%	-0.08%	0.18%	0.03
6/30/2023	\$24.00	\$23.16	3.56%	1.10%	0.85%	0.90%	2.67%	0.51
7/3/2023	\$24.65	\$24.00	2.68%	0.21%	-0.50%	-0.10%	2.78%	0.54
7/5/2023	\$21.64	\$24.65	-13.04%	-0.33%	0.30%	0.25%	-13.29%	-2.56 **
7/6/2023	\$22.40	\$21.64	3.45%	-0.97%	-1.35%	-0.87%	4.32%	0.84
7/7/2023	\$21.72	\$22.40	-3.07%	0.00%	-0.85%	-0.30%	-2.77%	-0.53
7/10/2023	\$21.38	\$21.72	-1.56%	0.41%	1.81%	1.50%	-3.06%	-0.59
7/11/2023	\$21.66	\$21.38	1.30%	0.77%	0.10%	0.47%	0.83%	0.16
7/12/2023	\$21.60	\$21.66	-0.30%	0.80%	0.87%	0.97%	-1.27%	-0.25
7/13/2023	\$21.50	\$21.60	-0.44%	0.93%	0.41%	0.71%	-1.15%	-0.22
7/14/2023	\$21.22	\$21.50	-1.35%	-0.30%	-0.19%	0.08%	-1.43%	-0.28
7/17/2023	\$21.42	\$21.22	0.96%	0.45%	0.67%	0.76%	0.20%	0.04
7/18/2023	\$20.84	\$21.42	-2.72%	0.73%	0.33%	0.60%	-3.32%	-0.65
7/19/2023	\$20.99	\$20.84	0.70%	0.26%	0.39%	0.52%	0.17%	0.03
7/20/2023	\$20.97	\$20.99	-0.07%	-0.72%	-0.30%	-0.10%	0.03%	0.01
7/21/2023	\$21.12	\$20.97	0.71%	0.01%	0.68%	0.65%	0.06%	0.01
7/24/2023	\$20.22	\$21.12	-4.40%	0.33%	-1.49%	-0.62%	-3.78%	-0.73
7/25/2023	\$19.88	\$20.22	-1.70%	0.23%	-0.24%	0.11%	-1.81%	-0.35
7/26/2023	\$19.66	\$19.88	-1.08%	0.08%	-0.29%	0.05%	-1.13%	-0.22
7/27/2023	\$19.92	\$19.66	1.32%	-0.75%	-0.66%	-0.30%	1.62%	0.32
7/28/2023	\$20.52	\$19.92	2.93%	1.06%	1.69%	1.52%	1.41%	0.27
7/31/2023	\$21.47	\$20.52	4.55%	0.32%	-0.09%	0.37%	4.18%	0.83
8/1/2023	\$21.30	\$21.47	-0.83%	-0.37%	-0.90%	-0.23%	-0.60%	-0.12
8/2/2023	\$20.59	\$21.30	-3.39%	-1.45%	-0.69%	-0.65%	-2.74%	-0.55
8/3/2023	\$20.40	\$20.59	-0.88%	-0.24%	-0.28%	0.08%	-0.96%	-0.19
8/4/2023	\$19.66	\$20.40	-3.73%	-0.42%	0.42%	0.28%	-4.01%	-0.81
8/7/2023	\$18.54	\$19.66	-5.87%	0.75%	-0.56%	0.43%	-6.30%	-1.28
8/8/2023	\$18.35	\$18.54	-1.00%	-0.48%	0.65%	0.51%	-1.51%	-0.31
8/9/2023	\$18.23	\$18.35	-0.69%	-0.65%	0.36%	0.24%	-0.94%	-0.19
8/10/2023	\$17.75	\$18.23	-2.65%	0.01%	0.28%	0.41%	-3.06%	-0.63
8/11/2023	\$17.51	\$17.75	-1.37%	-0.09%	0.39%	0.40%	-1.77%	-0.36
8/14/2023	\$17.83	\$17.51	1.80%	0.40%	-0.22%	0.27%	1.53%	0.31
8/15/2023	\$17.10	\$17.83	-4.15%	-1.19%	-0.27%	-0.47%	-3.68%	-0.75
8/16/2023	\$16.71	\$17.10	-2.32%	-0.79%	-1.21%	-0.86%	-1.46%	-0.30
8/17/2023	\$17.04	\$16.71	1.93%	-0.84%	-0.44%	-0.43%	2.35%	0.48
8/18/2023	\$16.71	\$17.04	-1.95%	0.06%	0.04%	0.27%	-2.22%	-0.45
8/21/2023	\$16.35	\$16.71	-2.14%	0.55%	1.52%	1.52%	-3.66%	-0.80
8/22/2023	\$16.82	\$16.35	2.81%	-0.19%	0.05%	0.04%	2.77%	0.61
8/23/2023	\$17.02	\$16.82	1.18%	1.10%	0.45%	0.80%	0.38%	0.08

## Exhibit-27

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
8/24/2023	\$18.01	\$17.02	5.65%	-1.26%	-1.00%	-1.11%	6.75%	1.48
8/25/2023	\$17.95	\$18.01	-0.31%	0.70%	0.59%	0.79%	-1.10%	-0.24
8/28/2023	\$18.95	\$17.95	5.39%	0.71%	0.45%	0.64%	4.75%	1.05
8/29/2023	\$20.65	\$18.95	8.62%	1.31%	0.80%	1.15%	7.47%	1.64
8/30/2023	\$21.12	\$20.65	2.24%	0.38%	0.18%	0.39%	1.85%	0.41
8/31/2023	\$20.45	\$21.12	-3.24%	-0.11%	-0.86%	-0.60%	-2.64%	-0.59
9/1/2023	\$20.53	\$20.45	0.38%	0.28%	0.94%	1.00%	-0.62%	-0.14
9/5/2023	\$20.47	\$20.53	-0.27%	-0.61%	-1.41%	-1.29%	1.01%	0.23
9/6/2023	\$20.05	\$20.47	-2.06%	-0.64%	-0.55%	-0.58%	-1.48%	-0.33
9/7/2023	\$20.62	\$20.05	2.79%	-0.38%	-0.14%	-0.13%	2.93%	0.66
9/8/2023	\$20.60	\$20.62	-0.11%	0.10%	0.37%	0.49%	-0.59%	-0.14
9/11/2023	\$20.13	\$20.60	-2.33%	0.65%	0.45%	0.72%	-3.05%	-0.70
9/12/2023	\$18.75	\$20.13	-7.07%	-0.48%	0.00%	-0.06%	-7.01%	-1.61
9/13/2023	\$18.88	\$18.75	0.66%	0.00%	-0.59%	-0.55%	1.22%	0.28
9/14/2023	\$19.04	\$18.88	0.86%	0.90%	0.42%	0.68%	0.19%	0.04
9/15/2023	\$18.76	\$19.04	-1.48%	-1.06%	-0.82%	-1.02%	-0.46%	-0.11
9/18/2023	\$17.65	\$18.76	-6.13%	-0.04%	-1.08%	-1.02%	-5.10%	-1.17
9/19/2023	\$17.51	\$17.65	-0.79%	-0.26%	0.36%	0.31%	-1.10%	-0.25
9/20/2023	\$17.83	\$17.51	1.81%	-0.83%	-0.71%	-0.87%	2.68%	0.62
9/21/2023	\$17.08	\$17.83	-4.30%	-1.70%	-1.02%	-1.35%	-2.96%	-0.68
9/22/2023	\$16.92	\$17.08	-0.91%	-0.19%	-0.34%	-0.50%	-0.41%	-0.10
9/25/2023	\$17.14	\$16.92	1.28%	0.34%	-0.30%	-0.25%	1.53%	0.38
9/26/2023	\$16.45	\$17.14	-4.08%	-1.42%	0.72%	-0.51%	-3.57%	-1.05
9/27/2023	\$16.31	\$16.45	-0.90%	0.11%	0.35%	0.09%	-0.99%	-0.29
9/28/2023	\$16.26	\$16.31	-0.26%	0.66%	-0.11%	0.03%	-0.29%	-0.09
9/29/2023	\$16.12	\$16.26	-0.87%	-0.26%	-0.47%	-0.89%	0.02%	0.01
10/2/2023	\$16.20	\$16.12	0.45%	-0.35%	-1.41%	-1.93%	2.38%	0.73
10/3/2023	\$17.03	\$16.20	5.05%	-1.45%	-0.93%	-2.13%	7.17%	2.19 **
10/4/2023	\$18.20	\$17.03	6.64%	0.70%	0.47%	0.64%	6.00%	1.82 *
10/5/2023	\$18.09	\$18.20	-0.65%	-0.07%	1.49%	1.24%	-1.89%	-0.57
10/6/2023	\$18.42	\$18.09	1.86%	1.14%	0.56%	1.15%	0.71%	0.22
10/9/2023	\$18.01	\$18.42	-2.27%	0.61%	-0.52%	-0.28%	-1.98%	-0.60
10/10/2023	\$18.50	\$18.01	2.69%	0.64%	0.77%	1.01%	1.68%	0.51
10/11/2023	\$17.70	\$18.50	-4.44%	0.38%	0.31%	0.37%	-4.81%	-1.46
10/12/2023	\$16.89	\$17.70	-4.69%	-0.85%	-1.58%	-2.32%	-2.37%	-0.73

**Sources:** Bloomberg (Sector Index Logarithmic Return), CRSP (Market Index Logarithmic Return), and computations performed by Crowninshield Financial Research, Inc. (Cassava Synthetic Stock Closing Price; Cassava Synthetic Stock Prior Day Closing Price; Cassava Synthetic Stock Explained Return; Cassava Synthetic Stock Residual Return; t-statistic).

**Notes:**

\*\* indicates statistical significance at the 90% confidence level.

\*\*\* indicates statistical significance at the 95% confidence level.

\*\*\*\* indicates statistical significance at the 99% confidence level.

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
9/14/2020	\$7.56	\$3.27	83.87%	1.53%	5.23%	4.16%	79.71%	11.67 ***
9/15/2020	\$6.99	\$7.56	-7.92%	0.54%	1.10%	0.83%	-8.75%	-1.28
9/16/2020	\$6.90	\$6.99	-1.25%	-0.32%	0.04%	-0.13%	-1.12%	-0.16
9/17/2020	\$6.92	\$6.90	0.31%	-0.79%	-0.39%	-0.51%	0.82%	0.12
9/18/2020	\$9.82	\$6.92	34.93%	-0.89%	0.40%	0.09%	34.84%	5.12 ***
9/21/2020	\$9.56	\$9.82	-2.70%	-1.26%	-2.50%	-2.15%	-0.55%	-0.08
9/22/2020	\$10.16	\$9.56	6.18%	0.93%	0.83%	0.78%	5.40%	0.74
9/23/2020	\$9.45	\$10.16	-7.31%	-2.43%	-1.39%	-1.03%	-6.28%	-0.86
9/24/2020	\$9.37	\$9.45	-0.78%	0.20%	-0.99%	-0.84%	0.06%	0.01
9/25/2020	\$11.15	\$9.37	17.37%	1.56%	2.16%	1.97%	15.39%	2.12 **
9/28/2020	\$10.87	\$11.15	-2.55%	1.64%	0.69%	0.73%	-3.28%	-0.45
9/29/2020	\$11.13	\$10.87	2.35%	-0.40%	0.16%	0.32%	2.03%	0.28
9/30/2020	\$11.20	\$11.13	0.61%	0.69%	0.55%	0.63%	-0.02%	0.00
10/1/2020	\$11.13	\$11.20	-0.61%	0.78%	0.94%	1.01%	-1.62%	-0.22
10/2/2020	\$10.46	\$11.13	-6.21%	-0.78%	-2.21%	-1.96%	-4.25%	-0.59
10/5/2020	\$11.31	\$10.46	7.83%	1.81%	4.30%	4.26%	3.57%	0.49
10/6/2020	\$11.08	\$11.31	-2.08%	-1.20%	-1.18%	-0.96%	-1.13%	-0.16
10/7/2020	\$11.78	\$11.08	6.19%	1.69%	2.18%	2.20%	3.99%	0.55
10/8/2020	\$11.97	\$11.78	1.58%	0.85%	0.26%	0.32%	1.26%	0.17
10/9/2020	\$11.62	\$11.97	-2.97%	0.85%	0.79%	0.89%	-3.86%	-0.54
10/12/2020	\$11.16	\$11.62	-4.06%	1.34%	0.73%	0.74%	-4.80%	-0.67
10/13/2020	\$10.99	\$11.16	-1.57%	-0.50%	0.49%	0.69%	-2.26%	-0.32
10/14/2020	\$10.79	\$10.99	-1.83%	-0.60%	-1.28%	-1.18%	-0.65%	-0.09
10/15/2020	\$10.62	\$10.79	-1.54%	-0.08%	-2.35%	-2.38%	0.84%	0.12
10/16/2020	\$10.28	\$10.62	-3.27%	-0.07%	0.49%	0.62%	-3.89%	-0.55
10/19/2020	\$9.66	\$10.28	-6.20%	-1.43%	-1.82%	-1.66%	-4.55%	-0.64
10/20/2020	\$9.22	\$9.66	-4.64%	0.38%	-0.59%	-0.61%	-4.03%	-0.57
10/21/2020	\$8.76	\$9.22	-5.12%	-0.34%	-1.61%	-1.64%	-3.48%	-0.49
10/22/2020	\$8.65	\$8.76	-1.35%	0.61%	1.33%	1.36%	-2.71%	-0.39
10/23/2020	\$9.18	\$8.65	6.02%	0.38%	0.26%	0.22%	5.80%	0.83
10/26/2020	\$8.88	\$9.18	-3.34%	-1.83%	-0.92%	-0.72%	-2.61%	-0.37
10/27/2020	\$8.91	\$8.88	0.27%	-0.30%	0.52%	0.60%	-0.33%	-0.05
10/28/2020	\$8.45	\$8.91	-5.24%	-3.34%	-2.57%	-2.31%	-2.93%	-0.42
10/29/2020	\$8.54	\$8.45	1.00%	1.04%	0.62%	0.53%	0.47%	0.07
10/30/2020	\$8.02	\$8.54	-6.28%	-1.32%	-2.16%	-2.14%	-4.13%	-0.60
11/2/2020	\$8.71	\$8.02	8.29%	1.20%	0.10%	-0.06%	8.35%	1.21
11/3/2020	\$8.99	\$8.71	3.19%	1.86%	1.67%	1.61%	1.58%	0.23
11/4/2020	\$11.31	\$8.99	22.90%	1.94%	6.02%	6.19%	16.71%	2.42 **
11/5/2020	\$10.25	\$11.31	-9.82%	2.09%	-0.11%	-0.28%	-9.55%	-1.38
11/6/2020	\$10.42	\$10.25	1.69%	0.00%	-1.57%	-1.77%	3.46%	0.50
11/9/2020	\$10.01	\$10.42	-4.10%	1.06%	-0.73%	-0.95%	-3.14%	-0.45
11/10/2020	\$9.73	\$10.01	-2.75%	-0.06%	0.19%	0.20%	-2.95%	-0.43
11/11/2020	\$10.60	\$9.73	8.51%	0.80%	1.18%	1.15%	7.36%	1.07
11/12/2020	\$10.87	\$10.60	2.57%	-0.97%	-0.01%	0.15%	2.42%	0.35
11/13/2020	\$8.24	\$10.87	-27.70%	1.32%	1.25%	1.20%	-28.89%	-4.20 ***
11/16/2020	\$8.09	\$8.24	-1.94%	1.23%	0.00%	-0.19%	-1.75%	-0.25
11/17/2020	\$7.92	\$8.09	-2.11%	-0.15%	-0.44%	-0.47%	-1.64%	-0.24
11/18/2020	\$7.44	\$7.92	-6.23%	-0.91%	-1.96%	-2.08%	-4.15%	-0.61
11/19/2020	\$7.44	\$7.44	0.06%	0.58%	0.14%	0.03%	0.03%	0.00
11/20/2020	\$7.30	\$7.44	-1.99%	-0.43%	0.62%	0.77%	-2.76%	-0.41
11/23/2020	\$7.07	\$7.30	-3.20%	0.79%	0.24%	0.10%	-3.30%	-0.49
11/24/2020	\$7.18	\$7.07	1.53%	1.50%	-0.66%	-1.09%	2.62%	0.39
11/25/2020	\$7.52	\$7.18	4.72%	0.02%	0.54%	0.57%	4.15%	0.61
11/27/2020	\$7.73	\$7.52	2.78%	0.40%	3.06%	3.41%	-0.63%	-0.09
11/30/2020	\$7.57	\$7.73	-2.18%	-0.58%	1.09%	1.31%	-3.50%	-0.52
12/1/2020	\$7.38	\$7.57	-2.55%	0.96%	0.37%	0.23%	-2.78%	-0.41
12/2/2020	\$7.20	\$7.38	-2.36%	0.12%	-0.28%	-0.38%	-1.97%	-0.29

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
12/3/2020	\$7.35	\$7.20	2.06%	0.23%	0.89%	0.91%	1.16%	0.17
12/4/2020	\$7.58	\$7.35	2.95%	1.04%	1.00%	0.90%	2.05%	0.31
12/7/2020	\$7.46	\$7.58	-1.59%	-0.02%	-0.04%	-0.08%	-1.50%	-0.22
12/8/2020	\$7.77	\$7.46	4.14%	0.43%	1.70%	1.80%	2.34%	0.35
12/9/2020	\$7.79	\$7.77	0.19%	-0.96%	-1.78%	-1.91%	2.10%	0.32
12/10/2020	\$7.59	\$7.79	-2.50%	0.26%	1.47%	1.59%	-4.09%	-0.62
12/11/2020	\$8.01	\$7.59	5.28%	-0.23%	0.21%	0.22%	5.07%	0.77
12/14/2020	\$7.71	\$8.01	-3.81%	-0.33%	2.38%	2.70%	-6.51%	-0.98
12/15/2020	\$7.92	\$7.71	2.71%	1.30%	0.08%	-0.14%	2.85%	0.43
12/16/2020	\$7.87	\$7.92	-0.57%	0.14%	-0.63%	-0.74%	0.17%	0.03
12/17/2020	\$8.26	\$7.87	4.82%	0.79%	1.38%	1.40%	3.41%	0.52
12/18/2020	\$8.03	\$8.26	-2.88%	-0.21%	0.40%	0.48%	-3.36%	-0.51
12/21/2020	\$7.67	\$8.03	-4.54%	-0.29%	0.47%	0.55%	-5.09%	-0.77
12/22/2020	\$7.53	\$7.67	-1.85%	0.06%	0.27%	0.25%	-2.11%	-0.32
12/23/2020	\$7.53	\$7.53	0.06%	0.14%	0.30%	0.26%	-0.20%	-0.03
12/24/2020	\$7.56	\$7.53	0.31%	0.23%	-0.78%	-0.93%	1.24%	0.19
12/28/2020	\$7.19	\$7.56	-5.01%	0.38%	-1.55%	-1.80%	-3.21%	-0.49
12/29/2020	\$6.78	\$7.19	-5.88%	-0.37%	-1.19%	-1.33%	-4.55%	-0.70
12/30/2020	\$6.93	\$6.78	2.22%	0.33%	0.46%	0.39%	1.83%	0.28
12/31/2020	\$6.77	\$6.93	-2.26%	0.36%	-0.67%	-0.88%	-1.38%	-0.21
1/4/2021	\$6.98	\$6.77	2.94%	-1.32%	-0.59%	-0.53%	3.47%	0.54
1/5/2021	\$7.55	\$6.98	7.91%	0.90%	0.15%	-0.05%	7.96%	1.23
1/6/2021	\$8.04	\$7.55	6.24%	0.80%	1.30%	1.30%	4.94%	0.76
1/7/2021	\$8.26	\$8.04	2.68%	1.61%	2.88%	3.00%	-0.31%	-0.05
1/8/2021	\$8.27	\$8.26	0.12%	0.47%	0.61%	0.60%	-0.49%	-0.08
1/11/2021	\$8.17	\$8.27	-1.18%	-0.57%	-0.14%	-0.10%	-1.08%	-0.17
1/12/2021	\$8.12	\$8.17	-0.65%	0.42%	0.24%	0.18%	-0.83%	-0.13
1/13/2021	\$11.37	\$8.12	33.70%	0.09%	-0.22%	-0.30%	34.00%	5.29 ***
1/14/2021	\$10.32	\$11.37	-9.62%	0.00%	2.41%	2.75%	-12.38%	-1.83 *
1/15/2021	\$10.47	\$10.32	1.38%	-0.86%	-0.08%	0.02%	1.36%	0.20
1/19/2021	\$12.81	\$10.47	20.20%	0.85%	1.89%	1.92%	18.28%	2.68 ***
1/20/2021	\$12.13	\$12.81	-5.50%	1.20%	0.25%	0.30%	-5.80%	-0.84
1/21/2021	\$11.92	\$12.13	-1.71%	-0.09%	-1.05%	-1.03%	-0.69%	-0.10
1/22/2021	\$12.70	\$11.92	6.35%	-0.15%	0.91%	1.12%	5.23%	0.76
1/25/2021	\$15.45	\$12.70	19.59%	0.24%	1.71%	2.00%	17.59%	2.54 **
1/26/2021	\$19.13	\$15.45	21.36%	-0.29%	-1.81%	-1.76%	23.12%	3.30 ***
1/27/2021	\$19.59	\$19.13	2.37%	-2.51%	-3.04%	-2.59%	4.96%	0.69
1/28/2021	\$18.27	\$19.59	-6.95%	0.92%	0.35%	0.59%	-7.53%	-1.07
1/29/2021	\$19.27	\$18.27	5.32%	-1.78%	0.31%	0.72%	4.59%	0.65
2/1/2021	\$22.44	\$19.27	15.22%	1.71%	1.16%	1.33%	13.89%	1.96 **
2/2/2021	\$56.45	\$22.44	92.26%	1.39%	1.06%	1.34%	90.92%	12.75 ***
2/3/2021	\$86.84	\$56.45	43.07%	0.14%	-0.33%	0.43%	42.64%	4.61 ***
2/4/2021	\$63.41	\$86.84	-31.44%	1.12%	1.44%	2.36%	-33.79%	-3.50 ***
2/5/2021	\$44.50	\$63.41	-35.41%	0.61%	1.66%	2.30%	-37.71%	-3.81 ***
2/8/2021	\$59.73	\$44.50	29.42%	0.97%	2.09%	2.39%	27.03%	2.65 ***
2/9/2021	\$56.61	\$59.73	-5.37%	0.10%	-0.62%	0.24%	-5.61%	-0.55
2/10/2021	\$48.59	\$56.61	-15.27%	-0.03%	-0.85%	0.02%	-15.30%	-1.50
2/11/2021	\$47.85	\$48.59	-1.54%	0.19%	-0.19%	0.55%	-2.09%	-0.20
2/12/2021	\$45.74	\$47.85	-4.51%	0.47%	0.49%	1.12%	-5.63%	-0.55
2/16/2021	\$51.59	\$45.74	12.04%	-0.11%	-2.18%	-1.00%	13.03%	1.27
2/17/2021	\$50.82	\$51.59	-1.50%	-0.23%	0.42%	0.92%	-2.42%	-0.24
2/18/2021	\$50.31	\$50.82	-1.01%	-0.66%	-1.86%	-0.85%	-0.16%	-0.02
2/19/2021	\$54.88	\$50.31	8.70%	0.27%	1.04%	1.51%	7.19%	0.70
2/22/2021	\$52.27	\$54.88	-4.87%	-0.97%	-2.44%	-1.35%	-3.52%	-0.34
2/23/2021	\$51.55	\$52.27	-1.40%	-0.13%	-1.44%	-0.47%	-0.93%	-0.09
2/24/2021	\$52.37	\$51.55	1.58%	1.12%	0.87%	1.54%	0.04%	0.00
2/25/2021	\$50.55	\$52.37	-3.54%	-2.70%	-2.59%	-1.82%	-1.71%	-0.17

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
2/26/2021	\$48.47	\$50.55	-4.20%	-0.39%	-0.02%	0.63%	-4.83%	-0.47
3/1/2021	\$49.62	\$48.47	2.34%	2.45%	1.61%	2.34%	-0.01%	0.00
3/2/2021	\$51.25	\$49.62	3.25%	-0.91%	-2.01%	-1.06%	4.31%	0.42
3/3/2021	\$48.47	\$51.25	-5.59%	-1.48%	-3.68%	-2.40%	-3.19%	-0.31
3/4/2021	\$44.05	\$48.47	-9.57%	-1.68%	-2.46%	-1.48%	-8.09%	-0.79
3/5/2021	\$42.83	\$44.05	-2.81%	1.72%	1.97%	2.58%	-5.38%	-0.53
3/8/2021	\$44.37	\$42.83	3.55%	-0.59%	-1.98%	-1.08%	4.63%	0.45
3/9/2021	\$51.44	\$44.37	14.77%	1.67%	2.92%	3.32%	11.46%	1.12
3/10/2021	\$51.15	\$51.44	-0.56%	0.68%	0.07%	0.83%	-1.40%	-0.14
3/11/2021	\$53.67	\$51.15	4.80%	1.41%	2.76%	3.11%	1.69%	0.17
3/12/2021	\$53.14	\$53.67	-0.98%	0.15%	-0.61%	0.37%	-1.35%	-0.13
3/15/2021	\$51.98	\$53.14	-2.21%	0.70%	1.49%	2.01%	-4.23%	-0.41
3/16/2021	\$51.89	\$51.98	-0.17%	-0.43%	0.00%	0.80%	-0.97%	-0.09
3/17/2021	\$61.99	\$51.89	17.78%	0.36%	0.63%	1.27%	16.51%	1.62
3/18/2021	\$55.67	\$61.99	-10.75%	-1.81%	-3.26%	-2.03%	-8.72%	-0.85
3/19/2021	\$57.03	\$55.67	2.41%	0.18%	1.73%	2.38%	0.03%	0.00
3/22/2021	\$54.98	\$57.03	-3.65%	0.48%	1.34%	1.96%	-5.61%	-0.55
3/23/2021	\$51.70	\$54.98	-6.16%	-1.21%	-4.02%	-2.55%	-3.61%	-0.35
3/24/2021	\$48.41	\$51.70	-6.58%	-0.91%	-2.96%	-1.75%	-4.83%	-0.47
3/25/2021	\$49.45	\$48.41	2.13%	0.65%	1.11%	1.74%	0.39%	0.04
3/26/2021	\$46.02	\$49.45	-7.18%	1.52%	0.27%	0.70%	-7.87%	-0.77
3/29/2021	\$44.09	\$46.02	-4.29%	-0.53%	-1.39%	-0.59%	-3.70%	-0.36
3/30/2021	\$43.43	\$44.09	-1.50%	0.00%	-0.36%	0.37%	-1.87%	-0.18
3/31/2021	\$44.47	\$43.43	2.36%	0.56%	2.51%	3.46%	-1.10%	-0.11
4/1/2021	\$45.98	\$44.47	3.33%	1.27%	0.83%	1.61%	1.72%	0.17
4/5/2021	\$44.42	\$45.98	-3.46%	1.14%	0.45%	1.24%	-4.70%	-0.46
4/6/2021	\$42.23	\$44.42	-5.04%	0.03%	-0.58%	0.09%	-5.13%	-0.51
4/7/2021	\$41.03	\$42.23	-2.88%	-0.15%	-1.78%	-1.15%	-1.73%	-0.17
4/8/2021	\$41.61	\$41.03	1.41%	0.59%	0.32%	1.01%	0.39%	0.04
4/9/2021	\$41.11	\$41.61	-1.22%	0.55%	-0.38%	0.32%	-1.54%	-0.15
4/12/2021	\$35.63	\$41.11	-14.30%	-0.07%	-1.44%	-0.79%	-13.51%	-1.33
4/13/2021	\$35.60	\$35.63	-0.08%	0.40%	1.75%	2.50%	-2.57%	-0.25
4/14/2021	\$35.28	\$35.60	-0.91%	-0.29%	1.51%	2.00%	-2.91%	-0.29
4/15/2021	\$34.86	\$35.28	-1.19%	1.00%	1.26%	1.91%	-3.10%	-0.31
4/16/2021	\$34.63	\$34.86	-0.68%	0.26%	0.05%	0.64%	-1.32%	-0.13
4/19/2021	\$33.71	\$34.63	-2.67%	-0.70%	-1.09%	-0.60%	-2.07%	-0.20
4/20/2021	\$31.84	\$33.71	-5.71%	-0.91%	0.02%	0.44%	-6.15%	-0.61
4/21/2021	\$34.47	\$31.84	7.93%	1.12%	2.00%	2.72%	5.21%	0.51
4/22/2021	\$35.81	\$34.47	3.83%	-0.73%	-0.16%	0.30%	3.53%	0.35
4/23/2021	\$39.18	\$35.81	8.98%	1.20%	0.46%	1.21%	7.77%	0.77
4/26/2021	\$41.30	\$39.18	5.26%	0.44%	2.02%	2.65%	2.62%	0.26
4/27/2021	\$43.99	\$41.30	6.31%	-0.02%	-0.43%	0.07%	6.25%	0.63
4/28/2021	\$46.75	\$43.99	6.08%	0.01%	-0.72%	-0.21%	6.29%	0.63
4/29/2021	\$47.19	\$46.75	0.94%	0.35%	-1.12%	-0.53%	1.47%	0.15
4/30/2021	\$46.36	\$47.19	-1.77%	-0.80%	-0.03%	0.47%	-2.24%	-0.22
5/3/2021	\$42.76	\$46.36	-8.10%	0.20%	-0.03%	0.56%	-8.66%	-0.87
5/4/2021	\$40.90	\$42.76	-4.43%	-0.85%	-3.10%	-2.84%	-1.60%	-0.16
5/5/2021	\$41.59	\$40.90	1.67%	-0.01%	-0.80%	-0.34%	2.01%	0.20
5/6/2021	\$41.37	\$41.59	-0.54%	0.48%	-0.36%	0.19%	-0.73%	-0.07
5/7/2021	\$40.97	\$41.37	-0.95%	0.86%	0.90%	1.57%	-2.52%	-0.25
5/10/2021	\$38.34	\$40.97	-6.66%	-1.24%	-1.85%	-1.53%	-5.13%	-0.51
5/11/2021	\$39.10	\$38.34	1.99%	-0.66%	0.53%	1.08%	0.91%	0.09
5/12/2021	\$37.28	\$39.10	-4.77%	-2.28%	-0.93%	-0.53%	-4.25%	-0.43
5/13/2021	\$37.65	\$37.28	0.98%	0.97%	0.01%	0.50%	0.48%	0.05
5/14/2021	\$40.61	\$37.65	7.58%	1.74%	2.21%	2.88%	4.70%	0.47
5/17/2021	\$43.45	\$40.61	6.76%	-0.14%	0.39%	0.94%	5.82%	0.58
5/18/2021	\$46.54	\$43.45	6.86%	-0.60%	0.27%	0.84%	6.01%	0.60

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
5/19/2021	\$47.45	\$46.54	1.95%	-0.38%	-1.04%	-0.64%	2.58%	0.26
5/20/2021	\$48.86	\$47.45	2.93%	1.11%	2.26%	3.01%	-0.08%	-0.01
5/21/2021	\$49.76	\$48.86	1.82%	-0.03%	-0.69%	-0.25%	2.07%	0.21
5/24/2021	\$47.89	\$49.76	-3.82%	0.93%	-0.57%	-0.26%	-3.56%	-0.36
5/25/2021	\$47.38	\$47.89	-1.08%	-0.27%	-0.62%	-0.10%	-0.99%	-0.10
5/26/2021	\$50.66	\$47.38	6.69%	0.45%	0.62%	1.22%	5.47%	0.55
5/27/2021	\$54.77	\$50.66	7.80%	0.29%	0.42%	1.06%	6.74%	0.68
5/28/2021	\$53.43	\$54.77	-2.47%	0.10%	0.43%	1.15%	-3.61%	-0.36
6/1/2021	\$56.36	\$53.43	5.34%	0.17%	-0.67%	-0.25%	5.58%	0.56
6/2/2021	\$60.18	\$56.36	6.55%	0.17%	0.32%	0.95%	5.60%	0.56
6/3/2021	\$61.48	\$60.18	2.14%	-0.52%	-0.11%	0.66%	1.48%	0.15
6/4/2021	\$63.83	\$61.48	3.75%	0.84%	1.23%	2.03%	1.71%	0.17
6/7/2021	\$67.14	\$63.83	5.06%	0.16%	3.56%	4.92%	0.14%	0.01
6/8/2021	\$68.63	\$67.14	2.19%	0.18%	-0.09%	0.66%	1.53%	0.16
6/9/2021	\$66.07	\$68.63	-3.81%	-0.29%	1.40%	2.58%	-6.38%	-0.66
6/10/2021	\$65.99	\$66.07	-0.12%	0.40%	1.74%	2.68%	-2.80%	-0.29
6/11/2021	\$76.64	\$65.99	14.97%	0.31%	-0.74%	-0.11%	15.08%	1.56
6/14/2021	\$75.10	\$76.64	-2.03%	0.13%	-0.08%	0.73%	-2.76%	-0.28
6/15/2021	\$71.71	\$75.10	-4.62%	-0.30%	-1.63%	-0.94%	-3.69%	-0.38
6/16/2021	\$79.85	\$71.71	10.76%	-0.47%	-0.76%	-0.04%	10.80%	1.11
6/17/2021	\$78.22	\$79.85	-2.07%	-0.14%	0.67%	1.57%	-3.64%	-0.37
6/18/2021	\$79.10	\$78.22	1.13%	-1.26%	-0.31%	0.47%	0.66%	0.07
6/21/2021	\$89.40	\$79.10	12.24%	1.35%	0.82%	1.80%	10.44%	1.07
6/22/2021	\$77.35	\$89.40	-14.48%	0.49%	0.20%	1.19%	-15.67%	-1.61
6/23/2021	\$77.29	\$77.35	-0.07%	-0.01%	-0.35%	0.54%	-0.61%	-0.06
6/24/2021	\$81.09	\$77.29	4.80%	0.65%	1.26%	2.39%	2.41%	0.25
6/25/2021	\$78.39	\$81.09	-3.38%	0.32%	0.79%	1.80%	-5.18%	-0.54
6/28/2021	\$84.81	\$78.39	7.87%	0.11%	0.19%	1.09%	6.78%	0.70
6/29/2021	\$82.48	\$84.81	-2.78%	0.00%	-0.02%	0.79%	-3.57%	-0.37
6/30/2021	\$84.77	\$82.48	2.73%	0.04%	0.35%	1.22%	1.51%	0.16
7/1/2021	\$88.45	\$84.77	4.25%	0.42%	1.16%	2.25%	2.00%	0.21
7/2/2021	\$89.59	\$88.45	1.28%	0.50%	-0.45%	0.72%	0.56%	0.06
7/6/2021	\$92.14	\$89.59	2.81%	-0.30%	-1.50%	-0.82%	3.63%	0.38
7/7/2021	\$96.29	\$92.14	4.41%	0.11%	-1.32%	-0.35%	4.76%	0.50
7/8/2021	\$105.47	\$96.29	9.10%	-0.90%	0.49%	0.84%	8.27%	0.86
7/9/2021	\$94.78	\$105.47	-10.69%	1.28%	0.84%	2.54%	-13.23%	-1.38
7/12/2021	\$98.63	\$94.78	3.98%	0.22%	-0.44%	0.55%	3.43%	0.36
7/13/2021	\$103.30	\$98.63	4.63%	-0.60%	-1.09%	-0.51%	5.13%	0.53
7/14/2021	\$96.89	\$103.30	-6.40%	-0.24%	-1.26%	-0.57%	-5.83%	-0.61
7/15/2021	\$82.22	\$96.89	-16.42%	-0.39%	-0.01%	0.67%	-17.09%	-1.78 *
7/16/2021	\$79.60	\$82.22	-3.24%	-0.76%	1.07%	1.53%	-4.78%	-0.50
7/19/2021	\$81.90	\$79.60	2.85%	-1.47%	0.77%	0.62%	2.23%	0.23
7/20/2021	\$90.39	\$81.90	9.86%	1.68%	1.32%	3.41%	6.45%	0.67
7/21/2021	\$116.57	\$90.39	25.43%	0.96%	0.60%	2.26%	23.17%	2.41 **
7/22/2021	\$125.67	\$116.57	7.52%	0.03%	-0.13%	0.86%	6.66%	0.69
7/23/2021	\$122.87	\$125.67	-2.25%	0.89%	0.79%	2.62%	-4.87%	-0.50
7/26/2021	\$119.30	\$122.87	-2.95%	0.16%	-2.03%	-1.23%	-1.72%	-0.18
7/27/2021	\$126.87	\$119.30	6.15%	-0.60%	-0.93%	-0.59%	6.74%	0.69
7/28/2021	\$134.46	\$126.87	5.81%	0.30%	2.92%	4.87%	0.94%	0.10
7/29/2021	\$102.40	\$134.46	-27.24%	0.45%	-0.84%	0.29%	-27.53%	-2.83 ***
7/30/2021	\$69.60	\$102.40	-38.61%	-0.56%	-0.14%	0.47%	-39.07%	-4.01 ***
8/2/2021	\$79.74	\$69.60	13.60%	-0.14%	-0.01%	0.75%	12.86%	1.28
8/3/2021	\$84.28	\$79.74	5.54%	0.68%	2.17%	4.11%	1.43%	0.14
8/4/2021	\$87.76	\$84.28	4.04%	-0.40%	1.37%	2.37%	1.67%	0.17
8/5/2021	\$100.98	\$87.76	14.03%	0.71%	1.82%	3.85%	10.18%	1.01
8/6/2021	\$96.17	\$100.98	-4.88%	0.08%	-1.51%	-0.93%	-3.95%	-0.39
8/9/2021	\$104.72	\$96.17	8.52%	-0.04%	2.56%	4.36%	4.16%	0.41

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
8/10/2021	\$108.25	\$104.72	3.31%	0.07%	-1.64%	-1.14%	4.45%	0.44
8/11/2021	\$108.63	\$108.25	0.35%	0.24%	-3.04%	-2.99%	3.35%	0.33
8/12/2021	\$119.69	\$108.63	9.69%	0.20%	0.85%	2.32%	7.37%	0.73
8/13/2021	\$121.82	\$119.69	1.77%	0.03%	-0.06%	1.00%	0.77%	0.08
8/16/2021	\$116.87	\$121.82	-4.15%	-0.08%	-1.38%	-0.76%	-3.39%	-0.34
8/17/2021	\$104.49	\$116.87	-11.19%	-0.79%	1.99%	3.15%	-14.35%	-1.43
8/18/2021	\$106.12	\$104.49	1.55%	-0.89%	-1.37%	-1.41%	2.96%	0.29
8/19/2021	\$101.57	\$106.12	-4.38%	-0.23%	-2.57%	-2.19%	-2.19%	-0.22
8/20/2021	\$104.07	\$101.57	2.43%	0.86%	1.64%	3.71%	-1.28%	-0.13
8/23/2021	\$115.80	\$104.07	10.68%	1.05%	3.09%	5.61%	5.07%	0.50
8/24/2021	\$117.47	\$115.80	1.43%	0.42%	-0.34%	1.00%	0.43%	0.04
8/25/2021	\$81.14	\$117.47	-37.00%	0.26%	0.47%	1.88%	-38.88%	-3.88 ***
8/26/2021	\$70.71	\$81.14	-13.76%	-0.65%	-0.65%	-0.45%	-13.32%	-1.29
8/27/2021	\$58.31	\$70.71	-19.28%	1.09%	0.33%	2.35%	-21.64%	-2.09 **
8/30/2021	\$53.19	\$58.31	-9.19%	0.30%	-0.23%	0.82%	-10.01%	-0.96
8/31/2021	\$56.83	\$53.19	6.62%	-0.11%	0.62%	1.37%	5.25%	0.50
9/1/2021	\$52.07	\$56.83	-8.75%	0.20%	1.02%	2.14%	-10.88%	-1.04
9/2/2021	\$54.21	\$52.07	4.03%	0.41%	1.06%	2.29%	1.74%	0.17
9/3/2021	\$50.16	\$54.21	-7.76%	-0.01%	-0.19%	0.54%	-8.30%	-0.79
9/7/2021	\$47.89	\$50.16	-4.63%	-0.42%	-0.27%	-0.03%	-4.60%	-0.44
9/8/2021	\$46.43	\$47.89	-3.10%	-0.35%	-1.06%	-0.87%	-2.23%	-0.21
9/9/2021	\$49.71	\$46.43	6.83%	-0.29%	0.31%	0.64%	6.20%	0.59
9/10/2021	\$50.69	\$49.71	1.95%	-0.73%	-0.52%	-0.75%	2.70%	0.26
9/13/2021	\$47.04	\$50.69	-7.48%	0.20%	-1.22%	-0.48%	-7.01%	-0.67
9/14/2021	\$41.91	\$47.04	-11.54%	-0.62%	-0.27%	-0.36%	-11.18%	-1.07
9/15/2021	\$43.92	\$41.91	4.67%	0.85%	0.95%	2.64%	2.04%	0.19
9/16/2021	\$44.07	\$43.92	0.35%	-0.09%	0.50%	1.12%	-0.77%	-0.07
9/17/2021	\$48.26	\$44.07	9.08%	-0.74%	0.59%	0.46%	8.62%	0.82
9/20/2021	\$48.05	\$48.26	-0.45%	-1.84%	-2.22%	-3.98%	3.53%	0.34
9/21/2021	\$52.66	\$48.05	9.17%	0.09%	1.00%	1.68%	7.48%	0.73
9/22/2021	\$52.02	\$52.66	-1.23%	0.99%	-0.13%	1.76%	-2.99%	-0.29
9/23/2021	\$60.16	\$52.02	14.54%	1.20%	1.40%	3.63%	10.91%	1.07
9/24/2021	\$61.76	\$60.16	2.63%	-0.01%	-1.89%	-1.51%	4.15%	0.40
9/27/2021	\$67.75	\$61.76	9.25%	-0.10%	-0.78%	-0.36%	9.62%	0.94
9/28/2021	\$64.42	\$67.75	-5.04%	-2.10%	-3.01%	-5.16%	0.13%	0.01
9/29/2021	\$61.59	\$64.42	-4.50%	-0.01%	-0.43%	0.18%	-4.68%	-0.46
9/30/2021	\$61.64	\$61.59	0.08%	-0.95%	0.20%	-0.50%	0.58%	0.06
10/1/2021	\$59.64	\$61.64	-3.30%	1.06%	-1.76%	0.27%	-3.57%	-0.35
10/4/2021	\$53.97	\$59.64	-9.98%	-1.30%	-2.00%	-3.18%	-6.80%	-0.66
10/5/2021	\$56.42	\$53.97	4.43%	0.95%	0.16%	2.03%	2.40%	0.23
10/6/2021	\$51.75	\$56.42	-8.63%	0.28%	-1.17%	-0.23%	-8.39%	-0.82
10/7/2021	\$52.93	\$51.75	2.25%	0.99%	1.25%	3.21%	-0.96%	-0.09
10/8/2021	\$50.97	\$52.93	-3.78%	-0.25%	-0.53%	-0.34%	-3.44%	-0.33
10/11/2021	\$50.48	\$50.97	-0.96%	-0.64%	-0.03%	-0.34%	-0.62%	-0.06
10/12/2021	\$51.15	\$50.48	1.31%	0.02%	0.10%	0.70%	0.60%	0.06
10/13/2021	\$54.37	\$51.15	6.11%	0.48%	0.42%	1.71%	4.40%	0.43
10/14/2021	\$52.70	\$54.37	-3.12%	1.58%	1.31%	4.24%	-7.35%	-0.72
10/15/2021	\$49.27	\$52.70	-6.73%	0.57%	-0.68%	0.63%	-7.36%	-0.72
10/18/2021	\$49.63	\$49.27	0.73%	0.33%	-1.29%	-0.44%	1.17%	0.11
10/19/2021	\$46.84	\$49.63	-5.80%	0.68%	1.11%	2.68%	-8.48%	-0.83
10/20/2021	\$45.78	\$46.84	-2.28%	0.39%	-0.07%	0.97%	-3.26%	-0.32
10/21/2021	\$46.20	\$45.78	0.91%	0.29%	0.72%	1.72%	-0.81%	-0.08
10/22/2021	\$45.16	\$46.20	-2.27%	-0.17%	-0.45%	-0.11%	-2.16%	-0.21
10/25/2021	\$47.36	\$45.16	4.76%	0.55%	1.10%	2.46%	2.30%	0.22
10/26/2021	\$46.73	\$47.36	-1.33%	-0.01%	-0.02%	0.55%	-1.89%	-0.18
10/27/2021	\$44.36	\$46.73	-5.20%	-0.76%	-1.65%	-2.15%	-3.06%	-0.30
10/28/2021	\$44.01	\$44.36	-0.80%	1.12%	1.90%	4.05%	-4.85%	-0.47

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
10/29/2021	\$42.82	\$44.01	-2.73%	0.10%	-0.34%	0.29%	-3.03%	-0.29
11/1/2021	\$45.43	\$42.82	5.91%	0.57%	1.59%	2.96%	2.94%	0.29
11/2/2021	\$57.47	\$45.43	23.51%	0.20%	0.78%	1.65%	21.86%	2.13 **
11/3/2021	\$56.22	\$57.47	-2.19%	0.73%	1.71%	3.44%	-5.63%	-0.54
11/4/2021	\$83.03	\$56.22	38.98%	0.29%	-1.78%	-1.04%	40.02%	3.85 ***
11/5/2021	\$89.16	\$83.03	7.13%	0.40%	-2.69%	-0.94%	8.07%	0.76
11/8/2021	\$87.94	\$89.16	-1.38%	0.20%	0.07%	1.22%	-2.60%	-0.24
11/9/2021	\$77.06	\$87.94	-13.21%	-0.29%	-1.08%	-0.48%	-12.73%	-1.20
11/10/2021	\$68.41	\$77.06	-11.90%	-1.05%	-1.33%	-2.16%	-9.75%	-0.91
11/11/2021	\$71.56	\$68.41	4.50%	0.24%	-0.21%	1.06%	3.44%	0.32
11/12/2021	\$67.58	\$71.56	-5.72%	0.71%	0.12%	2.19%	-7.90%	-0.74
11/15/2021	\$59.88	\$67.58	-12.11%	-0.03%	-0.45%	0.30%	-12.40%	-1.16
11/16/2021	\$61.00	\$59.88	1.86%	0.40%	0.08%	1.46%	0.40%	0.04
11/17/2021	\$46.64	\$61.00	-26.85%	-0.45%	-0.09%	-0.31%	-26.53%	-2.48 **
11/18/2021	\$47.94	\$46.64	2.76%	0.03%	-0.34%	0.36%	2.39%	0.22
11/19/2021	\$52.70	\$47.94	9.47%	-0.29%	0.52%	0.26%	9.20%	0.85
11/22/2021	\$52.07	\$52.70	-1.21%	-0.62%	-0.68%	-1.14%	-0.07%	-0.01
11/23/2021	\$51.97	\$52.07	-0.19%	-0.03%	-0.37%	0.30%	-0.49%	-0.05
11/24/2021	\$57.15	\$51.97	9.51%	0.32%	0.22%	1.45%	8.07%	0.74
11/26/2021	\$55.43	\$57.15	-3.06%	-2.26%	0.41%	-3.93%	0.87%	0.08
11/29/2021	\$54.08	\$55.43	-2.47%	1.00%	0.46%	3.09%	-5.56%	-0.51
11/30/2021	\$52.94	\$54.08	-2.13%	-1.93%	-0.89%	-3.98%	1.85%	0.17
12/1/2021	\$48.40	\$52.94	-8.96%	-1.52%	-2.26%	-3.96%	-5.00%	-0.46
12/2/2021	\$47.90	\$48.40	-1.04%	1.53%	0.42%	4.17%	-5.21%	-0.48
12/3/2021	\$45.40	\$47.90	-5.36%	-1.14%	-2.35%	-3.32%	-2.04%	-0.19
12/6/2021	\$43.55	\$45.40	-4.17%	1.17%	-1.56%	1.97%	-6.14%	-0.57
12/7/2021	\$47.09	\$43.55	7.83%	2.13%	3.81%	7.69%	0.14%	0.01
12/8/2021	\$49.31	\$47.09	4.60%	0.43%	1.20%	2.38%	2.22%	0.20
12/9/2021	\$45.43	\$49.31	-8.18%	-1.08%	-2.23%	-3.18%	-5.01%	-0.46
12/10/2021	\$43.82	\$45.43	-3.62%	0.61%	-1.27%	0.84%	-4.47%	-0.41
12/13/2021	\$44.61	\$43.82	1.81%	-0.99%	1.30%	-0.25%	2.06%	0.19
12/14/2021	\$46.47	\$44.61	4.08%	-0.77%	-0.16%	-1.03%	5.11%	0.47
12/15/2021	\$45.22	\$46.47	-2.73%	1.49%	2.22%	5.34%	-8.06%	-0.74
12/16/2021	\$43.40	\$45.22	-4.11%	-1.01%	-1.06%	-2.15%	-1.95%	-0.18
12/17/2021	\$42.91	\$43.40	-1.15%	-0.63%	2.58%	1.51%	-2.66%	-0.25
12/20/2021	\$36.55	\$42.91	-16.05%	-1.24%	-0.90%	-2.50%	-13.54%	-1.25
12/21/2021	\$43.03	\$36.55	16.34%	1.97%	0.66%	5.00%	11.34%	1.04
12/22/2021	\$43.31	\$43.03	0.65%	0.95%	-0.37%	2.35%	-1.70%	-0.16
12/23/2021	\$43.81	\$43.31	1.13%	0.68%	0.89%	2.72%	-1.59%	-0.15
12/27/2021	\$46.21	\$43.81	5.35%	1.20%	-1.46%	2.02%	3.34%	0.31
12/28/2021	\$43.77	\$46.21	-5.43%	-0.24%	-0.74%	-0.48%	-4.96%	-0.45
12/29/2021	\$42.46	\$43.77	-3.05%	0.06%	0.41%	1.00%	-4.05%	-0.37
12/30/2021	\$43.47	\$42.46	2.36%	-0.10%	0.51%	0.73%	1.63%	0.15
12/31/2021	\$43.23	\$43.47	-0.56%	-0.24%	-0.87%	-0.53%	-0.03%	0.00
1/3/2022	\$47.22	\$43.23	8.84%	0.61%	0.70%	2.45%	6.39%	0.59
1/4/2022	\$47.44	\$47.22	0.46%	-0.24%	-2.49%	-1.61%	2.07%	0.19
1/5/2022	\$49.00	\$47.44	3.25%	-2.21%	-3.94%	-6.98%	10.23%	0.94
1/6/2022	\$48.60	\$49.00	-0.83%	0.02%	-0.04%	0.66%	-1.50%	-0.14
1/7/2022	\$47.52	\$48.60	-2.24%	-0.42%	-0.94%	-0.83%	-1.41%	-0.13
1/10/2022	\$47.55	\$47.52	0.06%	-0.19%	1.04%	0.93%	-0.87%	-0.08
1/11/2022	\$49.26	\$47.55	3.52%	1.08%	1.15%	3.74%	-0.22%	-0.02
1/12/2022	\$48.00	\$49.26	-2.58%	0.18%	-1.53%	0.10%	-2.68%	-0.24
1/13/2022	\$45.28	\$48.00	-5.83%	-1.45%	-2.29%	-4.06%	-1.77%	-0.17
1/14/2022	\$45.29	\$45.28	0.02%	0.02%	0.92%	1.33%	-1.30%	-0.12
1/18/2022	\$41.24	\$45.29	-9.37%	-1.95%	-3.93%	-6.43%	-2.94%	-0.28
1/19/2022	\$40.62	\$41.24	-1.50%	-0.94%	-1.05%	-2.21%	0.71%	0.07
1/20/2022	\$36.87	\$40.62	-9.69%	-1.11%	-1.14%	-2.63%	-7.06%	-0.66



## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
1/21/2022	\$35.66	\$36.87	-3.34%	-2.01%	-1.59%	-4.99%	1.66%	0.16
1/24/2022	\$38.45	\$35.66	7.52%	0.42%	0.84%	1.95%	5.57%	0.52
1/25/2022	\$39.28	\$38.45	2.13%	-1.25%	-1.42%	-3.24%	5.37%	0.51
1/26/2022	\$38.54	\$39.28	-1.90%	-0.36%	-1.17%	-1.22%	-0.68%	-0.06
1/27/2022	\$36.94	\$38.54	-4.25%	-0.81%	-1.82%	-2.82%	-1.42%	-0.14
1/28/2022	\$38.44	\$36.94	3.98%	2.22%	3.24%	7.80%	-3.82%	-0.37
1/31/2022	\$41.86	\$38.44	8.54%	2.22%	2.82%	7.48%	1.06%	0.10
2/1/2022	\$43.61	\$41.86	4.09%	0.85%	1.50%	3.22%	0.87%	0.08
2/2/2022	\$43.35	\$43.61	-0.60%	0.47%	-1.24%	-0.16%	-0.44%	-0.05
2/3/2022	\$42.83	\$43.35	-1.20%	-2.36%	-2.18%	-5.63%	4.44%	0.54
2/4/2022	\$45.19	\$42.83	5.35%	0.72%	0.44%	1.47%	3.87%	0.49
2/7/2022	\$44.40	\$45.19	-1.75%	-0.18%	1.01%	0.75%	-2.50%	-0.33
2/8/2022	\$44.40	\$44.40	0.00%	0.91%	0.09%	1.70%	-1.70%	-0.23
2/9/2022	\$46.42	\$44.40	4.46%	1.61%	2.49%	5.12%	-0.66%	-0.09
2/10/2022	\$50.74	\$46.42	8.89%	-1.64%	-2.43%	-4.91%	13.80%	1.84 *
2/11/2022	\$49.29	\$50.74	-2.90%	-1.78%	-0.96%	-3.54%	0.64%	0.08
2/14/2022	\$46.97	\$49.29	-4.82%	-0.41%	-1.81%	-2.10%	-2.71%	-0.36
2/15/2022	\$47.52	\$46.97	1.16%	1.75%	2.62%	5.34%	-4.18%	-0.55
2/16/2022	\$47.05	\$47.52	-0.99%	0.03%	-0.32%	-0.07%	-0.92%	-0.12
2/17/2022	\$43.99	\$47.05	-6.74%	-2.15%	-2.74%	-5.69%	-1.06%	-0.14
2/18/2022	\$44.02	\$43.99	0.07%	-0.83%	-1.21%	-2.27%	2.34%	0.31
2/22/2022	\$40.43	\$44.02	-8.49%	-1.13%	-0.48%	-2.06%	-6.43%	-0.85
2/23/2022	\$37.45	\$40.43	-7.66%	-1.82%	-2.09%	-4.67%	-2.99%	-0.40
2/24/2022	\$40.72	\$37.45	8.37%	1.60%	2.13%	4.59%	3.78%	0.50
2/25/2022	\$41.22	\$40.72	1.21%	2.19%	1.51%	5.17%	-3.96%	-0.53
2/28/2022	\$41.11	\$41.22	-0.27%	-0.04%	-0.37%	-0.28%	0.01%	0.00
3/1/2022	\$39.07	\$41.11	-5.08%	-1.51%	-0.56%	-2.95%	-2.13%	-0.28
3/2/2022	\$39.57	\$39.07	1.26%	1.76%	0.78%	3.83%	-2.57%	-0.34
3/3/2022	\$36.18	\$39.57	-8.97%	-0.81%	-1.66%	-2.80%	-6.16%	-0.82
3/4/2022	\$36.30	\$36.18	0.34%	-1.02%	-1.33%	-2.87%	3.21%	0.43
3/7/2022	\$33.82	\$36.30	-7.08%	-2.96%	-1.08%	-5.99%	-1.09%	-0.14
3/8/2022	\$34.45	\$33.82	1.84%	-0.44%	0.30%	-0.41%	2.25%	0.30
3/9/2022	\$36.36	\$34.45	5.39%	2.59%	3.12%	7.51%	-2.12%	-0.28
3/10/2022	\$36.57	\$36.36	0.60%	-0.42%	-0.94%	-1.50%	2.10%	0.28
3/11/2022	\$35.20	\$36.57	-3.83%	-1.38%	-1.77%	-3.93%	0.10%	0.01
3/14/2022	\$31.86	\$35.20	-9.98%	-1.06%	-1.08%	-2.73%	-7.25%	-0.97
3/15/2022	\$33.69	\$31.86	5.59%	1.89%	1.31%	4.65%	0.94%	0.12
3/16/2022	\$35.93	\$33.69	6.44%	2.51%	3.62%	7.94%	-1.50%	-0.20
3/17/2022	\$37.93	\$35.93	5.41%	1.38%	2.18%	4.44%	0.97%	0.13
3/18/2022	\$37.83	\$37.93	-0.28%	1.22%	1.53%	3.54%	-3.82%	-0.51
3/21/2022	\$36.90	\$37.83	-2.49%	-0.17%	-1.37%	-1.49%	-1.00%	-0.13
3/22/2022	\$37.67	\$36.90	2.08%	1.17%	2.09%	3.96%	-1.87%	-0.25
3/23/2022	\$38.75	\$37.67	2.81%	-1.19%	-2.13%	-3.92%	6.73%	0.91
3/24/2022	\$39.47	\$38.75	1.85%	1.30%	1.36%	3.46%	-1.61%	-0.22
3/25/2022	\$39.08	\$39.47	-0.99%	0.31%	-1.63%	-0.80%	-0.18%	-0.02
3/28/2022	\$38.70	\$39.08	-0.97%	0.61%	0.49%	1.61%	-2.58%	-0.35
3/29/2022	\$38.67	\$38.70	-0.09%	1.46%	2.66%	4.88%	-4.97%	-0.67
3/30/2022	\$37.59	\$38.67	-2.85%	-0.77%	-1.30%	-2.31%	-0.54%	-0.07
3/31/2022	\$36.28	\$37.59	-3.53%	-1.46%	-0.34%	-2.79%	-0.74%	-0.10
4/1/2022	\$36.78	\$36.28	1.36%	0.45%	2.28%	2.69%	-1.33%	-0.18
4/4/2022	\$37.15	\$36.78	1.00%	0.83%	1.23%	2.57%	-1.57%	-0.21
4/5/2022	\$30.30	\$37.15	-20.38%	-1.49%	-1.67%	-3.90%	-16.48%	-2.23 **
4/6/2022	\$28.35	\$30.30	-6.67%	-1.13%	0.26%	-1.94%	-4.72%	-0.63
4/7/2022	\$27.17	\$28.35	-4.22%	0.25%	0.83%	1.14%	-5.36%	-0.72
4/8/2022	\$26.25	\$27.17	-3.46%	-0.32%	-0.29%	-0.84%	-2.62%	-0.35
4/11/2022	\$25.39	\$26.25	-3.32%	-1.45%	-2.17%	-4.37%	1.05%	0.14
4/12/2022	\$25.48	\$25.39	0.35%	-0.27%	-0.53%	-0.85%	1.20%	0.16

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
4/13/2022	\$26.38	\$25.48	3.45%	1.33%	2.64%	4.59%	-1.14%	-0.15
4/14/2022	\$25.58	\$26.38	-3.06%	-1.18%	-1.13%	-3.08%	0.03%	0.00
4/18/2022	\$24.65	\$25.58	-3.73%	-0.21%	-2.90%	-2.34%	-1.39%	-0.19
4/19/2022	\$21.71	\$24.65	-12.67%	1.62%	0.80%	3.94%	-16.61%	-2.23 **
4/20/2022	\$19.76	\$21.71	-9.41%	-0.09%	0.26%	0.08%	-9.50%	-1.27
4/21/2022	\$17.89	\$19.76	-9.94%	-1.70%	-2.36%	-4.89%	-5.05%	-0.67
4/22/2022	\$18.37	\$17.89	2.64%	-2.67%	-2.27%	-6.82%	9.45%	1.26
4/25/2022	\$19.77	\$18.37	7.34%	0.53%	1.41%	1.94%	5.40%	0.72
4/26/2022	\$21.04	\$19.77	6.21%	-2.87%	-3.70%	-7.87%	14.08%	1.87 *
4/27/2022	\$20.42	\$21.04	-2.98%	0.13%	-0.36%	-0.10%	-2.88%	-0.38
4/28/2022	\$20.34	\$20.42	-0.39%	2.27%	-0.27%	3.65%	-4.04%	-0.54
4/29/2022	\$20.28	\$20.34	-0.29%	-3.41%	-2.27%	-7.64%	7.35%	0.98
5/2/2022	\$20.02	\$20.28	-1.28%	0.59%	1.39%	2.00%	-3.28%	-0.43
5/3/2022	\$20.36	\$20.02	1.66%	0.51%	0.47%	1.12%	0.54%	0.07
5/4/2022	\$20.28	\$20.36	-0.39%	2.76%	1.70%	5.65%	-6.04%	-0.80
5/5/2022	\$19.97	\$20.28	-1.52%	-3.70%	-4.12%	-9.01%	7.49%	0.99
5/6/2022	\$19.44	\$19.97	-2.71%	-0.84%	-3.91%	-4.43%	1.72%	0.23
5/9/2022	\$18.27	\$19.44	-6.23%	-3.61%	-5.05%	-9.20%	2.96%	0.39
5/10/2022	\$18.94	\$18.27	3.61%	0.13%	2.63%	2.18%	1.43%	0.19
5/11/2022	\$16.62	\$18.94	-13.06%	-1.73%	-3.68%	-5.28%	-7.79%	-1.03
5/12/2022	\$16.89	\$16.62	1.63%	0.15%	2.89%	2.49%	-0.86%	-0.11
5/13/2022	\$18.49	\$16.89	9.05%	2.66%	3.31%	6.34%	2.71%	0.36
5/16/2022	\$20.04	\$18.49	8.07%	-0.47%	0.57%	-0.27%	8.33%	1.10
5/17/2022	\$21.77	\$20.04	8.28%	2.03%	2.97%	5.20%	3.08%	0.41
5/18/2022	\$21.39	\$21.77	-1.78%	-3.84%	-2.92%	-7.93%	6.15%	0.81
5/19/2022	\$23.05	\$21.39	7.48%	-0.21%	1.24%	0.68%	6.80%	0.90
5/20/2022	\$24.21	\$23.05	4.92%	0.00%	0.80%	0.65%	4.27%	0.56
5/23/2022	\$26.14	\$24.21	7.64%	1.63%	0.59%	2.58%	5.06%	0.67
5/24/2022	\$24.04	\$26.14	-8.38%	-1.07%	-1.59%	-2.79%	-5.59%	-0.74
5/25/2022	\$25.52	\$24.04	6.01%	1.11%	0.51%	1.95%	4.06%	0.53
5/26/2022	\$24.60	\$25.52	-3.70%	1.96%	0.59%	3.20%	-6.90%	-0.91
5/27/2022	\$25.64	\$24.60	4.16%	2.42%	2.72%	5.47%	-1.30%	-0.17
5/31/2022	\$29.17	\$25.64	12.87%	-0.70%	-2.29%	-2.97%	15.84%	2.09 **
6/1/2022	\$25.70	\$29.17	-12.65%	-0.70%	-1.04%	-1.80%	-10.85%	-1.42
6/2/2022	\$26.24	\$25.70	2.08%	2.01%	0.34%	2.87%	-0.79%	-0.10
6/3/2022	\$27.73	\$26.24	5.50%	-1.55%	0.46%	-1.82%	7.32%	0.96
6/6/2022	\$26.71	\$27.73	-3.75%	0.29%	-1.65%	-1.13%	-2.62%	-0.34
6/7/2022	\$27.53	\$26.71	3.05%	0.98%	2.70%	3.42%	-0.38%	-0.05
6/8/2022	\$26.91	\$27.53	-2.27%	-1.05%	0.40%	-1.10%	-1.17%	-0.15
6/9/2022	\$24.85	\$26.91	-7.99%	-2.39%	-3.78%	-6.37%	-1.62%	-0.21
6/10/2022	\$26.27	\$24.85	5.55%	-2.86%	-3.03%	-6.35%	11.90%	1.55
6/13/2022	\$21.38	\$26.27	-20.59%	-4.15%	-4.09%	-8.44%	-12.15%	-1.59
6/14/2022	\$23.06	\$21.38	7.56%	-0.35%	0.26%	-0.35%	7.91%	1.03
6/15/2022	\$25.15	\$23.06	8.70%	1.49%	2.32%	3.86%	4.84%	0.63
6/16/2022	\$24.59	\$25.15	-2.28%	-3.48%	-2.23%	-6.56%	4.29%	0.56
6/17/2022	\$25.32	\$24.59	2.94%	0.40%	3.90%	4.15%	-1.21%	-0.16
6/21/2022	\$24.59	\$25.32	-2.92%	2.23%	2.27%	4.70%	-7.62%	-1.00
6/22/2022	\$27.17	\$24.59	9.97%	-0.22%	1.39%	0.87%	9.09%	1.19
6/23/2022	\$28.83	\$27.17	5.94%	0.91%	3.86%	4.68%	1.26%	0.17
6/24/2022	\$28.67	\$28.83	-0.57%	2.94%	1.70%	4.67%	-5.24%	-0.69
6/27/2022	\$28.82	\$28.67	0.53%	-0.21%	-0.22%	-0.64%	1.18%	0.15
6/28/2022	\$27.61	\$28.82	-4.28%	-1.89%	-2.39%	-4.53%	0.25%	0.03
6/29/2022	\$27.90	\$27.61	1.03%	-0.27%	0.75%	0.30%	0.73%	0.10
6/30/2022	\$26.33	\$27.90	-5.76%	-0.90%	-0.79%	-1.91%	-3.85%	-0.51
7/1/2022	\$24.85	\$26.33	-5.81%	1.09%	2.15%	3.09%	-8.90%	-1.17
7/5/2022	\$24.69	\$24.85	-0.65%	0.20%	2.16%	2.07%	-2.71%	-0.35
7/6/2022	\$22.81	\$24.69	-7.91%	0.07%	0.24%	0.01%	-7.93%	-1.04

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
7/7/2022	\$23.32	\$22.81	2.19%	1.68%	2.38%	3.71%	-1.52%	-0.20
7/8/2022	\$22.80	\$23.32	-2.23%	-0.08%	0.50%	0.05%	-2.28%	-0.30
7/11/2022	\$21.72	\$22.80	-4.84%	-1.33%	-1.95%	-3.69%	-1.15%	-0.15
7/12/2022	\$21.64	\$21.72	-0.40%	-0.81%	-0.17%	-1.42%	1.03%	0.14
7/13/2022	\$21.87	\$21.64	1.06%	-0.34%	0.03%	-0.74%	1.80%	0.24
7/14/2022	\$21.84	\$21.87	-0.14%	-0.56%	-1.68%	-2.65%	2.51%	0.33
7/15/2022	\$22.46	\$21.84	2.82%	1.84%	1.80%	3.36%	-0.54%	-0.07
7/18/2022	\$22.09	\$22.46	-1.67%	-0.56%	-2.36%	-3.21%	1.54%	0.21
7/19/2022	\$22.85	\$22.09	3.38%	2.70%	2.79%	5.28%	-1.90%	-0.25
7/20/2022	\$22.84	\$22.85	-0.08%	0.78%	0.03%	0.55%	-0.63%	-0.08
7/21/2022	\$22.38	\$22.84	-2.00%	0.93%	0.18%	0.78%	-2.78%	-0.37
7/22/2022	\$21.85	\$22.38	-2.39%	-1.05%	-2.28%	-3.72%	1.32%	0.18
7/25/2022	\$20.45	\$21.85	-6.64%	0.20%	0.33%	0.02%	-6.66%	-0.91
7/26/2022	\$20.52	\$20.45	0.32%	-1.19%	0.06%	-1.59%	1.90%	0.26
7/27/2022	\$17.84	\$20.52	-14.00%	2.50%	1.03%	2.88%	-16.88%	-2.31 **
7/28/2022	\$16.07	\$17.84	-10.45%	1.24%	-0.58%	-0.24%	-10.21%	-1.39
7/29/2022	\$15.62	\$16.07	-2.82%	1.33%	-0.62%	-0.35%	-2.47%	-0.33
8/1/2022	\$17.05	\$15.62	8.76%	-0.22%	-1.72%	-2.69%	11.45%	1.55
8/2/2022	\$18.43	\$17.05	7.78%	-0.53%	0.66%	-0.07%	7.85%	1.12
8/3/2022	\$17.68	\$18.43	-4.17%	1.49%	3.87%	4.77%	-8.94%	-1.28
8/4/2022	\$16.39	\$17.68	-7.58%	-0.05%	2.35%	1.88%	-9.46%	-1.35
8/5/2022	\$16.68	\$16.39	1.76%	-0.04%	1.44%	0.76%	1.00%	0.14
8/8/2022	\$18.27	\$16.68	9.12%	0.12%	0.92%	0.29%	8.83%	1.27
8/9/2022	\$18.97	\$18.27	3.78%	-0.64%	-1.70%	-2.66%	6.44%	0.92
8/10/2022	\$18.98	\$18.97	0.05%	2.24%	2.17%	3.07%	-3.02%	-0.43
8/11/2022	\$18.94	\$18.98	-0.23%	-0.02%	-1.55%	-2.03%	1.79%	0.26
8/12/2022	\$19.58	\$18.94	3.33%	1.67%	1.18%	1.67%	1.65%	0.24
8/15/2022	\$19.09	\$19.58	-2.52%	0.28%	1.64%	1.00%	-3.52%	-0.51
8/16/2022	\$19.14	\$19.09	0.27%	0.19%	-1.35%	-1.73%	2.01%	0.29
8/17/2022	\$24.61	\$19.14	25.14%	-0.92%	-2.10%	-3.22%	28.36%	4.07 ***
8/18/2022	\$25.32	\$24.61	2.84%	0.27%	-1.20%	-1.37%	4.21%	0.59
8/19/2022	\$24.58	\$25.32	-2.98%	-1.47%	-0.78%	-2.27%	-0.72%	-0.10
8/22/2022	\$23.57	\$24.58	-4.20%	-2.05%	-1.57%	-3.36%	-0.84%	-0.12
8/23/2022	\$24.41	\$23.57	3.49%	-0.07%	0.05%	-0.54%	4.03%	0.56
8/24/2022	\$26.69	\$24.41	8.96%	0.39%	1.36%	0.82%	8.15%	1.14
8/25/2022	\$26.26	\$26.69	-1.65%	1.41%	0.14%	0.66%	-2.30%	-0.32
8/26/2022	\$28.39	\$26.26	7.80%	-3.24%	-3.41%	-5.66%	13.46%	1.99 **
8/29/2022	\$25.01	\$28.39	-12.68%	-0.65%	-0.65%	-1.24%	-11.44%	-1.69 *
8/30/2022	\$25.13	\$25.01	0.51%	-1.15%	-0.96%	-1.86%	2.37%	0.35
8/31/2022	\$24.93	\$25.13	-0.80%	-0.72%	0.21%	-0.57%	-0.22%	-0.03
9/1/2022	\$24.40	\$24.93	-2.15%	-0.11%	1.87%	1.14%	-3.29%	-0.50
9/2/2022	\$23.74	\$24.40	-2.75%	-0.86%	-1.61%	-2.12%	-0.63%	-0.09
9/6/2022	\$26.64	\$23.74	11.53%	-0.49%	-1.71%	-1.93%	13.46%	2.03 **
9/7/2022	\$27.90	\$26.64	4.62%	1.81%	2.89%	3.41%	1.21%	0.18
9/8/2022	\$28.25	\$27.90	1.25%	0.74%	3.19%	2.81%	-1.56%	-0.23
9/9/2022	\$31.40	\$28.25	10.56%	1.65%	0.93%	1.88%	8.68%	1.31
9/12/2022	\$31.69	\$31.40	0.92%	1.07%	0.20%	0.95%	-0.03%	0.00
9/13/2022	\$29.60	\$31.69	-6.83%	-4.14%	-4.23%	-6.66%	-0.17%	-0.03
9/14/2022	\$31.19	\$29.60	5.25%	0.40%	0.90%	0.86%	4.39%	0.66
9/15/2022	\$30.07	\$31.19	-3.67%	-1.03%	0.26%	-0.77%	-2.90%	-0.44
9/16/2022	\$29.60	\$30.07	-1.57%	-0.96%	-0.98%	-1.57%	0.01%	0.00
9/19/2022	\$28.77	\$29.60	-2.85%	0.69%	-1.00%	-0.12%	-2.73%	-0.41
9/20/2022	\$37.00	\$28.77	25.16%	-1.23%	-0.73%	-1.72%	26.88%	4.08 ***
9/21/2022	\$35.67	\$37.00	-3.68%	-1.61%	-2.45%	-3.03%	-0.65%	-0.10
9/22/2022	\$48.55	\$35.67	30.83%	-1.15%	-0.52%	-1.38%	32.21%	4.75 ***
9/23/2022	\$39.49	\$48.55	-20.65%	-1.93%	-1.41%	-2.33%	-18.32%	-2.59 ***
9/26/2022	\$42.94	\$39.49	8.88%	-1.15%	-1.67%	-1.97%	10.34%	1.47

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
9/27/2022	\$43.71	\$42.94	1.77%	-0.07%	1.50%	1.07%	0.70%	0.10
9/28/2022	\$41.58	\$43.71	-4.99%	2.14%	4.21%	4.51%	-9.50%	-1.35
9/29/2022	\$40.89	\$41.58	-1.66%	-2.12%	-1.79%	-2.62%	0.96%	0.14
9/30/2022	\$39.71	\$40.89	-2.95%	-1.24%	-0.23%	-0.97%	-1.98%	-0.28
10/3/2022	\$39.12	\$39.71	-1.49%	2.51%	1.43%	2.62%	-4.11%	-0.58
10/4/2022	\$39.42	\$39.12	0.76%	3.19%	2.93%	4.01%	-3.25%	-0.46
10/5/2022	\$38.72	\$39.42	-1.79%	-0.32%	0.01%	-0.20%	-1.59%	-0.23
10/6/2022	\$40.12	\$38.72	3.55%	-0.94%	-0.54%	-0.96%	4.51%	0.64
10/7/2022	\$37.79	\$40.12	-5.97%	-2.78%	-2.67%	-3.42%	-2.55%	-0.36
10/10/2022	\$34.14	\$37.79	-10.17%	-0.82%	-0.67%	-0.95%	-9.22%	-1.31
10/11/2022	\$33.62	\$34.14	-1.52%	-0.64%	0.69%	-0.03%	-1.49%	-0.21
10/12/2022	\$33.77	\$33.62	0.43%	-0.29%	0.49%	0.08%	0.35%	0.05
10/13/2022	\$35.14	\$33.77	4.00%	2.32%	1.93%	2.74%	1.26%	0.18
10/14/2022	\$34.62	\$35.14	-1.49%	-2.40%	-1.54%	-2.62%	1.12%	0.16
10/17/2022	\$33.97	\$34.62	-1.91%	2.64%	2.04%	3.07%	-4.97%	-0.71
10/18/2022	\$32.95	\$33.97	-3.04%	1.15%	0.06%	0.84%	-3.88%	-0.55
10/19/2022	\$31.39	\$32.95	-4.87%	-0.90%	-3.35%	-2.64%	-2.23%	-0.32
10/20/2022	\$32.24	\$31.39	2.70%	-0.75%	-0.57%	-0.86%	3.56%	0.51
10/21/2022	\$33.21	\$32.24	2.95%	2.19%	2.56%	3.07%	-0.12%	-0.02
10/24/2022	\$32.25	\$33.21	-2.95%	0.87%	0.86%	1.12%	-4.07%	-0.58
10/25/2022	\$32.58	\$32.25	1.03%	1.81%	1.68%	2.24%	-1.21%	-0.17
10/26/2022	\$33.72	\$32.58	3.44%	-0.46%	1.43%	0.57%	2.87%	0.41
10/27/2022	\$33.14	\$33.72	-1.71%	-0.41%	-1.45%	-1.17%	-0.54%	-0.08
10/28/2022	\$34.93	\$33.14	5.26%	2.11%	4.05%	3.88%	1.38%	0.20
10/31/2022	\$34.61	\$34.93	-0.94%	-0.60%	-0.86%	-0.90%	-0.05%	-0.01
11/1/2022	\$34.09	\$34.61	-1.50%	-0.22%	0.87%	0.46%	-1.95%	-0.28
11/2/2022	\$34.10	\$34.09	0.03%	-2.54%	-1.45%	-2.53%	2.56%	0.36
11/3/2022	\$32.56	\$34.10	-4.62%	-0.89%	0.10%	-0.60%	-4.02%	-0.58
11/4/2022	\$33.51	\$32.56	2.88%	1.31%	0.16%	0.91%	1.97%	0.29
11/7/2022	\$32.20	\$33.51	-4.01%	0.81%	0.48%	0.52%	-4.53%	-0.71
11/8/2022	\$32.99	\$32.20	2.44%	0.53%	0.91%	0.73%	1.70%	0.27
11/9/2022	\$32.73	\$32.99	-0.80%	-2.14%	-1.24%	-2.05%	1.25%	0.20
11/10/2022	\$33.17	\$32.73	1.33%	5.38%	3.51%	4.67%	-3.34%	-0.53
11/11/2022	\$35.77	\$33.17	7.55%	1.05%	0.17%	0.26%	7.29%	1.16
11/14/2022	\$39.01	\$35.77	8.67%	-0.96%	0.27%	-0.20%	8.88%	1.41
11/15/2022	\$38.19	\$39.01	-2.11%	1.01%	0.37%	0.50%	-2.61%	-0.41
11/16/2022	\$33.28	\$38.19	-13.76%	-0.98%	-0.92%	-1.15%	-12.60%	-2.01 **
11/17/2022	\$32.98	\$33.28	-0.90%	-0.41%	-0.21%	-0.43%	-0.47%	-0.07
11/18/2022	\$31.92	\$32.98	-3.27%	0.42%	0.53%	0.58%	-3.84%	-0.63
11/21/2022	\$31.02	\$31.92	-2.87%	-0.46%	-0.63%	-0.73%	-2.14%	-0.35
11/22/2022	\$31.40	\$31.02	1.22%	1.32%	0.88%	1.07%	0.15%	0.02
11/23/2022	\$32.25	\$31.40	2.68%	0.59%	-0.41%	-0.29%	2.97%	0.49
11/25/2022	\$33.41	\$32.25	3.54%	0.04%	0.11%	0.05%	3.49%	0.57
11/28/2022	\$32.35	\$33.41	-3.25%	-1.58%	-0.67%	-1.12%	-2.13%	-0.35
11/29/2022	\$32.80	\$32.35	1.40%	-0.07%	-0.24%	-0.32%	1.72%	0.28
11/30/2022	\$33.18	\$32.80	1.14%	2.90%	3.19%	3.60%	-2.46%	-0.41
12/1/2022	\$32.58	\$33.18	-1.82%	0.02%	0.41%	0.31%	-2.12%	-0.35
12/2/2022	\$34.30	\$32.58	5.14%	-0.06%	1.21%	1.01%	4.13%	0.68
12/5/2022	\$32.02	\$34.30	-6.88%	-1.96%	-2.15%	-2.45%	-4.43%	-0.73
12/6/2022	\$31.86	\$32.02	-0.47%	-1.42%	-1.65%	-1.88%	1.40%	0.23
12/7/2022	\$35.18	\$31.86	9.91%	-0.19%	0.96%	0.76%	9.15%	1.51
12/8/2022	\$36.81	\$35.18	4.51%	0.73%	1.04%	1.10%	3.40%	0.56
12/9/2022	\$37.05	\$36.81	0.65%	-0.75%	-2.13%	-2.06%	2.71%	0.45
12/12/2022	\$39.73	\$37.05	6.99%	1.29%	0.91%	1.17%	5.82%	0.96
12/13/2022	\$41.77	\$39.73	5.01%	0.73%	1.49%	1.53%	3.48%	0.57
12/14/2022	\$42.08	\$41.77	0.74%	-0.55%	0.66%	0.45%	0.29%	0.05
12/15/2022	\$37.71	\$42.08	-10.98%	-2.44%	-1.83%	-2.24%	-8.73%	-1.44

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
12/16/2022	\$36.79	\$37.71	-2.46%	-1.04%	-0.89%	-1.07%	-1.39%	-0.23
12/19/2022	\$36.02	\$36.79	-2.11%	-0.97%	-1.91%	-1.86%	-0.25%	-0.04
12/20/2022	\$35.76	\$36.02	-0.74%	0.19%	1.28%	1.21%	-1.96%	-0.32
12/21/2022	\$35.01	\$35.76	-2.10%	1.45%	1.26%	1.66%	-3.76%	-0.62
12/22/2022	\$31.49	\$35.01	-10.59%	-1.41%	0.00%	-0.23%	-10.36%	-1.74 *
12/23/2022	\$30.03	\$31.49	-4.75%	0.55%	-1.52%	-1.19%	-3.56%	-0.60
12/27/2022	\$26.29	\$30.03	-13.30%	-0.39%	-2.24%	-2.06%	-11.24%	-1.88 *
12/28/2022	\$25.64	\$26.29	-2.51%	-1.24%	-0.30%	-0.54%	-1.98%	-0.33
12/29/2022	\$26.72	\$25.64	4.12%	1.82%	2.10%	2.25%	1.87%	0.31
12/30/2022	\$27.27	\$26.72	2.05%	-0.25%	0.32%	0.24%	1.81%	0.30
1/3/2023	\$25.72	\$27.27	-5.85%	-0.39%	-0.93%	-1.02%	-4.83%	-0.80
1/4/2023	\$27.68	\$25.72	7.33%	0.95%	1.11%	1.17%	6.16%	1.02
1/5/2023	\$28.13	\$27.68	1.59%	-1.10%	0.21%	-0.01%	1.60%	0.27
1/6/2023	\$27.51	\$28.13	-2.21%	2.20%	1.37%	1.55%	-3.76%	-0.63
1/9/2023	\$27.82	\$27.51	1.11%	0.11%	-2.33%	-2.67%	3.79%	0.63
1/10/2023	\$30.21	\$27.82	8.23%	0.73%	1.84%	1.90%	6.33%	1.06
1/11/2023	\$34.41	\$30.21	13.04%	1.25%	0.36%	0.39%	12.64%	2.11 **
1/12/2023	\$33.23	\$34.41	-3.52%	0.57%	1.18%	1.29%	-4.80%	-0.79
1/13/2023	\$33.23	\$33.23	0.02%	0.43%	0.76%	0.79%	-0.78%	-0.13
1/17/2023	\$33.68	\$33.23	1.34%	-0.11%	-0.06%	-0.14%	1.48%	0.24
1/18/2023	\$33.32	\$33.68	-1.08%	-1.43%	-0.69%	-0.96%	-0.12%	-0.02
1/19/2023	\$32.24	\$33.32	-3.30%	-0.75%	-1.03%	-1.20%	-2.10%	-0.35
1/20/2023	\$33.96	\$32.24	5.19%	1.79%	0.91%	1.17%	4.03%	0.67
1/23/2023	\$35.60	\$33.96	4.73%	1.17%	0.61%	0.81%	3.92%	0.65
1/24/2023	\$28.63	\$35.60	-21.81%	-0.11%	0.37%	0.39%	-22.19%	-3.68 ***
1/25/2023	\$26.76	\$28.63	-6.73%	0.03%	0.05%	0.11%	-6.83%	-1.13
1/26/2023	\$27.12	\$26.76	1.31%	1.03%	0.06%	0.25%	1.07%	0.18
1/27/2023	\$28.14	\$27.12	3.72%	0.35%	0.03%	0.09%	3.63%	0.60
1/30/2023	\$26.44	\$28.14	-6.25%	-1.31%	-1.56%	-1.75%	-4.51%	-0.75
1/31/2023	\$27.12	\$26.44	2.55%	1.54%	1.18%	1.44%	1.10%	0.18
2/1/2023	\$27.96	\$27.12	3.04%	1.11%	-0.18%	0.07%	2.97%	0.49
2/2/2023	\$30.59	\$27.96	8.99%	1.37%	0.00%	0.29%	8.70%	1.44
2/3/2023	\$30.01	\$30.59	-1.91%	-1.07%	-0.38%	-0.61%	-1.30%	-0.21
2/6/2023	\$28.69	\$30.01	-4.49%	-0.72%	-0.54%	-0.67%	-3.82%	-0.63
2/7/2023	\$28.86	\$28.69	0.58%	1.14%	0.36%	0.64%	-0.06%	-0.01
2/8/2023	\$28.66	\$28.86	-0.71%	-1.04%	-2.38%	-2.43%	1.72%	0.28
2/9/2023	\$27.78	\$28.66	-3.10%	-0.89%	-0.35%	-0.57%	-2.53%	-0.42
2/10/2023	\$27.34	\$27.78	-1.60%	0.15%	0.33%	0.32%	-1.92%	-0.32
2/13/2023	\$26.00	\$27.34	-5.04%	1.08%	1.03%	1.17%	-6.21%	-1.02
2/14/2023	\$25.25	\$26.00	-2.92%	0.09%	-0.12%	-0.19%	-2.73%	-0.45
2/15/2023	\$25.60	\$25.25	1.37%	0.44%	-0.07%	-0.06%	1.44%	0.24
2/16/2023	\$25.64	\$25.60	0.15%	-1.28%	-1.40%	-1.72%	1.86%	0.31
2/17/2023	\$26.30	\$25.64	2.54%	-0.29%	1.28%	0.99%	1.55%	0.26
2/21/2023	\$24.57	\$26.30	-6.78%	-2.07%	-2.50%	-2.90%	-3.88%	-0.64
2/22/2023	\$24.53	\$24.57	-0.16%	-0.06%	0.12%	0.01%	-0.18%	-0.03
2/23/2023	\$24.78	\$24.53	1.01%	0.49%	-0.55%	-0.45%	1.46%	0.24
2/24/2023	\$24.19	\$24.78	-2.43%	-1.02%	-1.95%	-2.09%	-0.34%	-0.06
2/27/2023	\$24.02	\$24.19	-0.70%	0.33%	0.44%	0.46%	-1.16%	-0.19
2/28/2023	\$23.88	\$24.02	-0.57%	-0.26%	0.22%	0.08%	-0.65%	-0.11
3/1/2023	\$24.34	\$23.88	1.88%	-0.32%	0.58%	0.39%	1.49%	0.25
3/2/2023	\$24.68	\$24.34	1.40%	0.65%	-0.18%	-0.06%	1.46%	0.24
3/3/2023	\$25.74	\$24.68	4.20%	1.54%	1.43%	1.61%	2.59%	0.43
3/6/2023	\$25.47	\$25.74	-1.04%	-0.18%	-1.06%	-1.01%	-0.03%	0.00
3/7/2023	\$24.48	\$25.47	-3.96%	-1.47%	-1.22%	-1.41%	-2.55%	-0.43
3/8/2023	\$24.22	\$24.48	-1.09%	0.13%	-0.75%	-0.64%	-0.45%	-0.08
3/9/2023	\$24.18	\$24.22	-0.18%	-1.95%	-1.97%	-2.15%	1.98%	0.33
3/10/2023	\$24.14	\$24.18	-0.14%	-1.66%	-1.45%	-1.60%	1.46%	0.24

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
3/13/2023	\$24.86	\$24.14	2.94%	-0.31%	2.70%	2.40%	0.54%	0.09
3/14/2023	\$25.20	\$24.86	1.34%	1.57%	1.13%	1.31%	0.03%	0.01
3/15/2023	\$25.17	\$25.20	-0.13%	-0.93%	-0.44%	-0.54%	0.41%	0.07
3/16/2023	\$25.99	\$25.17	3.23%	1.62%	0.56%	0.80%	2.42%	0.41
3/17/2023	\$25.59	\$25.99	-1.55%	-1.21%	-1.67%	-1.65%	0.10%	0.02
3/20/2023	\$25.41	\$25.59	-0.69%	0.87%	1.12%	1.16%	-1.85%	-0.31
3/21/2023	\$24.98	\$25.41	-1.71%	1.38%	-0.15%	0.08%	-1.79%	-0.30
3/22/2023	\$23.04	\$24.98	-8.11%	-1.66%	-2.10%	-2.09%	-6.02%	-1.01
3/23/2023	\$23.13	\$23.04	0.41%	0.18%	1.25%	1.14%	-0.74%	-0.12
3/24/2023	\$23.42	\$23.13	1.23%	0.47%	1.14%	1.08%	0.15%	0.02
3/27/2023	\$23.34	\$23.42	-0.33%	0.32%	0.27%	0.26%	-0.59%	-0.10
3/28/2023	\$22.80	\$23.34	-2.36%	-0.08%	0.13%	0.07%	-2.44%	-0.41
3/29/2023	\$23.08	\$22.80	1.23%	1.37%	1.24%	1.28%	-0.05%	-0.01
3/30/2023	\$23.29	\$23.08	0.90%	0.55%	-0.64%	-0.55%	1.45%	0.24
3/31/2023	\$23.43	\$23.29	0.62%	1.45%	1.40%	1.48%	-0.86%	-0.14
4/3/2023	\$23.39	\$23.43	-0.19%	0.31%	0.52%	0.50%	-0.69%	-0.12
4/4/2023	\$23.19	\$23.39	-0.85%	-0.66%	-0.75%	-0.79%	-0.06%	-0.01
4/5/2023	\$23.03	\$23.19	-0.69%	-0.41%	0.66%	0.56%	-1.25%	-0.21
4/6/2023	\$23.27	\$23.03	1.02%	0.31%	1.22%	1.16%	-0.14%	-0.02
4/10/2023	\$22.21	\$23.27	-4.65%	0.22%	-0.60%	-0.46%	-4.19%	-0.72
4/11/2023	\$22.64	\$22.21	1.92%	0.18%	0.15%	0.22%	1.70%	0.29
4/12/2023	\$22.22	\$22.64	-1.90%	-0.40%	-0.25%	-0.15%	-1.75%	-0.30
4/13/2023	\$22.79	\$22.22	2.55%	1.27%	2.13%	2.19%	0.35%	0.06
4/14/2023	\$22.60	\$22.79	-0.85%	-0.27%	-0.85%	-0.70%	-0.15%	-0.03
4/17/2023	\$23.77	\$22.60	5.06%	0.36%	0.95%	1.03%	4.03%	0.70
4/18/2023	\$23.74	\$23.77	-0.14%	0.07%	-0.50%	-0.36%	0.22%	0.04
4/19/2023	\$23.40	\$23.74	-1.45%	-0.05%	0.53%	0.64%	-2.09%	-0.36
4/20/2023	\$22.58	\$23.40	-3.54%	-0.58%	-0.81%	-0.66%	-2.88%	-0.50
4/21/2023	\$22.80	\$22.58	0.98%	0.06%	1.16%	1.25%	-0.27%	-0.05
4/24/2023	\$22.18	\$22.80	-2.76%	0.04%	-0.52%	-0.26%	-2.50%	-0.44
4/25/2023	\$21.24	\$22.18	-4.35%	-1.68%	-1.22%	-1.02%	-3.33%	-0.59
4/26/2023	\$20.93	\$21.24	-1.46%	-0.41%	-1.44%	-1.14%	-0.31%	-0.05
4/27/2023	\$21.94	\$20.93	4.69%	1.72%	0.40%	0.78%	3.91%	0.69
4/28/2023	\$22.65	\$21.94	3.22%	0.80%	0.73%	0.97%	2.26%	0.40
5/1/2023	\$22.64	\$22.65	-0.05%	-0.07%	0.95%	1.02%	-1.08%	-0.19
5/2/2023	\$21.52	\$22.64	-5.09%	-1.23%	-1.43%	-1.23%	-3.86%	-0.68
5/3/2023	\$21.58	\$21.52	0.28%	-0.52%	0.70%	0.69%	-0.41%	-0.07
5/4/2023	\$21.70	\$21.58	0.58%	-0.69%	-0.12%	-0.03%	0.61%	0.11
5/5/2023	\$21.77	\$21.70	0.29%	1.86%	1.65%	2.02%	-1.73%	-0.30
5/8/2023	\$22.39	\$21.77	2.80%	0.08%	-0.79%	-0.42%	3.22%	0.57
5/9/2023	\$25.88	\$22.39	14.49%	-0.39%	0.15%	0.25%	14.24%	2.51 **
5/10/2023	\$26.24	\$25.88	1.40%	0.41%	0.40%	0.66%	0.74%	0.13
5/11/2023	\$27.10	\$26.24	3.21%	-0.26%	-0.76%	-0.47%	3.68%	0.65
5/12/2023	\$25.88	\$27.10	-4.59%	-0.19%	-0.33%	-0.08%	-4.51%	-0.80
5/15/2023	\$25.78	\$25.88	-0.40%	0.50%	1.34%	1.42%	-1.82%	-0.32
5/16/2023	\$24.58	\$25.78	-4.76%	-0.81%	-2.47%	-1.81%	-2.96%	-0.52
5/17/2023	\$24.63	\$24.58	0.20%	1.23%	0.33%	0.80%	-0.60%	-0.11
5/18/2023	\$23.99	\$24.63	-2.65%	0.84%	-0.42%	0.14%	-2.79%	-0.50
5/19/2023	\$23.58	\$23.99	-1.69%	-0.19%	0.86%	0.74%	-2.43%	-0.43
5/22/2023	\$24.52	\$23.58	3.91%	0.19%	0.63%	0.66%	3.25%	0.58
5/23/2023	\$24.60	\$24.52	0.33%	-1.05%	0.04%	-0.15%	0.48%	0.09
5/24/2023	\$24.54	\$24.60	-0.27%	-0.80%	-1.31%	-0.99%	0.72%	0.13
5/25/2023	\$23.65	\$24.54	-3.70%	0.49%	-2.07%	-1.17%	-2.53%	-0.45
5/26/2023	\$23.01	\$23.65	-2.73%	1.25%	0.12%	0.53%	-3.26%	-0.59
5/30/2023	\$22.26	\$23.01	-3.31%	-0.02%	-0.65%	-0.37%	-2.94%	-0.53
5/31/2023	\$22.11	\$22.26	-0.70%	-0.57%	0.55%	0.34%	-1.04%	-0.19
6/1/2023	\$21.97	\$22.11	-0.63%	1.01%	0.24%	0.50%	-1.13%	-0.20

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
6/2/2023	\$22.57	\$21.97	2.71%	1.61%	1.74%	1.68%	1.03%	0.19
6/5/2023	\$22.23	\$22.57	-1.51%	-0.28%	0.40%	0.33%	-1.84%	-0.34
6/6/2023	\$22.67	\$22.23	1.96%	0.52%	-0.16%	0.02%	1.94%	0.36
6/7/2023	\$23.46	\$22.67	3.42%	-0.20%	-0.33%	-0.24%	3.66%	0.68
6/8/2023	\$23.92	\$23.46	1.92%	0.52%	0.47%	0.54%	1.38%	0.26
6/9/2023	\$23.65	\$23.92	-1.10%	0.01%	-0.59%	-0.33%	-0.77%	-0.14
6/12/2023	\$23.98	\$23.65	1.36%	0.85%	0.83%	0.88%	0.48%	0.09
6/13/2023	\$24.91	\$23.98	3.80%	0.75%	1.19%	1.09%	2.71%	0.50
6/14/2023	\$24.69	\$24.91	-0.85%	0.01%	-0.78%	-0.47%	-0.38%	-0.07
6/15/2023	\$24.45	\$24.69	-0.99%	1.16%	1.22%	1.13%	-2.12%	-0.40
6/16/2023	\$24.04	\$24.45	-1.69%	-0.38%	-0.37%	-0.17%	-1.52%	-0.29
6/20/2023	\$24.18	\$24.04	0.58%	-0.54%	-0.51%	-0.30%	0.87%	0.17
6/21/2023	\$24.64	\$24.18	1.86%	-0.47%	-0.43%	-0.23%	2.10%	0.40
6/22/2023	\$24.84	\$24.64	0.84%	0.18%	0.09%	0.19%	0.65%	0.13
6/23/2023	\$24.35	\$24.84	-2.01%	-0.85%	-1.25%	-0.79%	-1.22%	-0.24
6/26/2023	\$23.12	\$24.35	-5.17%	-0.27%	-1.27%	-0.69%	-4.48%	-0.87
6/27/2023	\$23.41	\$23.12	1.23%	1.16%	-1.14%	-0.26%	1.48%	0.29
6/28/2023	\$23.14	\$23.41	-1.17%	0.05%	0.51%	0.34%	-1.51%	-0.29
6/29/2023	\$23.16	\$23.14	0.10%	0.47%	-0.54%	-0.07%	0.17%	0.03
6/30/2023	\$24.00	\$23.16	3.56%	1.10%	0.85%	0.81%	2.75%	0.53
7/3/2023	\$24.65	\$24.00	2.68%	0.21%	-0.50%	-0.10%	2.78%	0.54
7/5/2023	\$21.64	\$24.65	-13.04%	-0.33%	0.30%	0.16%	-13.20%	-2.55 **
7/6/2023	\$22.40	\$21.64	3.45%	-0.97%	-1.35%	-0.84%	4.29%	0.83
7/7/2023	\$21.72	\$22.40	-3.07%	0.00%	-0.85%	-0.28%	-2.79%	-0.54
7/10/2023	\$21.38	\$21.72	-1.56%	0.41%	1.81%	1.29%	-2.85%	-0.55
7/11/2023	\$21.66	\$21.38	1.30%	0.77%	0.10%	0.43%	0.86%	0.17
7/12/2023	\$21.60	\$21.66	-0.30%	0.80%	0.87%	0.86%	-1.16%	-0.23
7/13/2023	\$21.50	\$21.60	-0.44%	0.93%	0.41%	0.65%	-1.09%	-0.21
7/14/2023	\$21.22	\$21.50	-1.35%	-0.30%	-0.19%	0.03%	-1.38%	-0.27
7/17/2023	\$21.42	\$21.22	0.96%	0.45%	0.67%	0.66%	0.30%	0.06
7/18/2023	\$20.84	\$21.42	-2.72%	0.73%	0.33%	0.55%	-3.27%	-0.64
7/19/2023	\$20.99	\$20.84	0.70%	0.26%	0.39%	0.44%	0.26%	0.05
7/20/2023	\$20.97	\$20.99	-0.07%	-0.72%	-0.30%	-0.15%	0.08%	0.02
7/21/2023	\$21.12	\$20.97	0.71%	0.01%	0.68%	0.53%	0.18%	0.03
7/24/2023	\$20.22	\$21.12	-4.40%	0.33%	-1.49%	-0.52%	-3.88%	-0.75
7/25/2023	\$19.88	\$20.22	-1.70%	0.23%	-0.24%	0.09%	-1.79%	-0.35
7/26/2023	\$19.66	\$19.88	-1.08%	0.08%	-0.29%	0.03%	-1.10%	-0.21
7/27/2023	\$19.92	\$19.66	1.32%	-0.75%	-0.66%	-0.33%	1.65%	0.32
7/28/2023	\$20.52	\$19.92	2.93%	1.06%	1.69%	1.34%	1.59%	0.31
7/31/2023	\$21.47	\$20.52	4.55%	0.32%	-0.09%	0.34%	4.22%	0.84
8/1/2023	\$21.30	\$21.47	-0.83%	-0.37%	-0.90%	-0.21%	-0.61%	-0.12
8/2/2023	\$20.59	\$21.30	-3.39%	-1.45%	-0.69%	-0.70%	-2.69%	-0.54
8/3/2023	\$20.40	\$20.59	-0.88%	-0.24%	-0.28%	0.04%	-0.92%	-0.19
8/4/2023	\$19.66	\$20.40	-3.73%	-0.42%	0.42%	0.16%	-3.89%	-0.79
8/7/2023	\$18.54	\$19.66	-5.87%	0.75%	-0.56%	0.39%	-6.26%	-1.28
8/8/2023	\$18.35	\$18.54	-1.00%	-0.48%	0.65%	0.48%	-1.48%	-0.30
8/9/2023	\$18.23	\$18.35	-0.69%	-0.65%	0.36%	0.22%	-0.91%	-0.19
8/10/2023	\$17.75	\$18.23	-2.65%	0.01%	0.28%	0.38%	-3.02%	-0.62
8/11/2023	\$17.51	\$17.75	-1.37%	-0.09%	0.39%	0.37%	-1.74%	-0.36
8/14/2023	\$17.83	\$17.51	1.80%	0.40%	-0.22%	0.24%	1.56%	0.32
8/15/2023	\$17.10	\$17.83	-4.15%	-1.19%	-0.27%	-0.49%	-3.66%	-0.76
8/16/2023	\$16.71	\$17.10	-2.32%	-0.79%	-1.21%	-0.88%	-1.44%	-0.30
8/17/2023	\$17.04	\$16.71	1.93%	-0.84%	-0.44%	-0.45%	2.38%	0.49
8/18/2023	\$16.71	\$17.04	-1.95%	0.06%	0.04%	0.24%	-2.18%	-0.45
8/21/2023	\$16.35	\$16.71	-2.14%	0.55%	1.52%	1.49%	-3.62%	-0.80
8/22/2023	\$16.82	\$16.35	2.81%	-0.19%	0.05%	0.01%	2.80%	0.62
8/23/2023	\$17.02	\$16.82	1.18%	1.10%	0.45%	0.76%	0.42%	0.09

## Exhibit-28

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on 8-K Events Excluding Earnings Announcements

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
8/24/2023	\$18.01	\$17.02	5.65%	-1.26%	-1.00%	-1.12%	6.77%	1.50
8/25/2023	\$17.95	\$18.01	-0.31%	0.70%	0.59%	0.76%	-1.07%	-0.24
8/28/2023	\$18.95	\$17.95	5.39%	0.71%	0.45%	0.61%	4.79%	1.06
8/29/2023	\$20.65	\$18.95	8.62%	1.31%	0.80%	1.11%	7.51%	1.66 *
8/30/2023	\$21.12	\$20.65	2.24%	0.38%	0.18%	0.36%	1.88%	0.42
8/31/2023	\$20.45	\$21.12	-3.24%	-0.11%	-0.86%	-0.62%	-2.62%	-0.59
9/1/2023	\$20.53	\$20.45	0.38%	0.28%	0.94%	0.96%	-0.58%	-0.13
9/5/2023	\$20.47	\$20.53	-0.27%	-0.61%	-1.41%	-1.31%	1.04%	0.23
9/6/2023	\$20.05	\$20.47	-2.06%	-0.64%	-0.55%	-0.60%	-1.46%	-0.33
9/7/2023	\$20.62	\$20.05	2.79%	-0.38%	-0.14%	-0.16%	2.95%	0.67
9/8/2023	\$20.60	\$20.62	-0.11%	0.10%	0.37%	0.45%	-0.56%	-0.13
9/11/2023	\$20.13	\$20.60	-2.33%	0.65%	0.45%	0.69%	-3.02%	-0.70
9/12/2023	\$18.75	\$20.13	-7.07%	-0.48%	0.00%	-0.09%	-6.98%	-1.61
9/13/2023	\$18.88	\$18.75	0.66%	0.00%	-0.59%	-0.58%	1.24%	0.29
9/14/2023	\$19.04	\$18.88	0.86%	0.90%	0.42%	0.64%	0.22%	0.05
9/15/2023	\$18.76	\$19.04	-1.48%	-1.06%	-0.82%	-1.04%	-0.45%	-0.10
9/18/2023	\$17.65	\$18.76	-6.13%	-0.04%	-1.08%	-1.05%	-5.08%	-1.18
9/19/2023	\$17.51	\$17.65	-0.79%	-0.26%	0.36%	0.29%	-1.07%	-0.25
9/20/2023	\$17.83	\$17.51	1.81%	-0.83%	-0.71%	-0.89%	2.70%	0.62
9/21/2023	\$17.08	\$17.83	-4.30%	-1.70%	-1.02%	-1.36%	-2.95%	-0.68
9/22/2023	\$16.92	\$17.08	-0.91%	-0.19%	-0.34%	-0.53%	-0.39%	-0.10
9/25/2023	\$17.14	\$16.92	1.28%	0.34%	-0.30%	-0.28%	1.56%	0.39
9/26/2023	\$16.45	\$17.14	-4.08%	-1.42%	0.72%	-0.52%	-3.56%	-1.05
9/27/2023	\$16.31	\$16.45	-0.90%	0.11%	0.35%	0.06%	-0.97%	-0.28
9/28/2023	\$16.26	\$16.31	-0.26%	0.66%	-0.11%	0.00%	-0.26%	-0.08
9/29/2023	\$16.12	\$16.26	-0.87%	-0.26%	-0.47%	-0.91%	0.04%	0.01
10/2/2023	\$16.20	\$16.12	0.45%	-0.35%	-1.41%	-1.94%	2.39%	0.74
10/3/2023	\$17.03	\$16.20	5.05%	-1.45%	-0.93%	-2.13%	7.18%	2.20 **
10/4/2023	\$18.20	\$17.03	6.64%	0.70%	0.47%	0.61%	6.03%	1.83 *
10/5/2023	\$18.09	\$18.20	-0.65%	-0.07%	1.49%	1.21%	-1.86%	-0.56
10/6/2023	\$18.42	\$18.09	1.86%	1.14%	0.56%	1.11%	0.75%	0.23
10/9/2023	\$18.01	\$18.42	-2.27%	0.61%	-0.52%	-0.32%	-1.95%	-0.59
10/10/2023	\$18.50	\$18.01	2.69%	0.64%	0.77%	0.97%	1.72%	0.52
10/11/2023	\$17.70	\$18.50	-4.44%	0.38%	0.31%	0.34%	-4.78%	-1.46
10/12/2023	\$16.89	\$17.70	-4.69%	-0.85%	-1.58%	-2.33%	-2.35%	-0.73

Sources: Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.

## Notes:

\*\* indicates statistical significance at the 90% confidence level.

\*\*\* indicates statistical significance at the 95% confidence level.

\*\*\*\* indicates statistical significance at the 99% confidence level.



## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
9/14/2020	\$7.56	\$3.27	83.87%	1.53%	5.23%	-2.50%	86.37%	6.55 ***
9/15/2020	\$6.99	\$7.56	-7.92%	0.54%	1.10%	-0.64%	-7.28%	-0.55
9/16/2020	\$6.90	\$6.99	-1.25%	-0.32%	0.04%	-1.04%	-0.22%	-0.02
9/17/2020	\$6.92	\$6.90	0.31%	-0.79%	-0.39%	-1.36%	1.67%	0.13
9/18/2020	\$9.82	\$6.92	34.93%	-0.89%	0.40%	-2.11%	37.04%	2.83 ***
9/21/2020	\$9.56	\$9.82	-2.70%	-1.26%	-2.50%	-0.30%	-2.40%	-0.18
9/22/2020	\$10.16	\$9.56	6.18%	0.93%	0.83%	0.25%	5.92%	0.45
9/23/2020	\$9.45	\$10.16	-7.31%	-2.43%	-1.39%	-2.44%	-4.87%	-0.37
9/24/2020	\$9.37	\$9.45	-0.78%	0.20%	-0.99%	0.53%	-1.31%	-0.10
9/25/2020	\$11.15	\$9.37	17.37%	1.56%	2.16%	0.21%	17.16%	1.30
9/28/2020	\$10.87	\$11.15	-2.55%	1.64%	0.69%	1.34%	-3.89%	-0.29
9/29/2020	\$11.13	\$10.87	2.35%	-0.40%	0.16%	-0.86%	3.20%	0.24
9/30/2020	\$11.20	\$11.13	0.61%	0.69%	0.55%	0.25%	0.36%	0.03
10/1/2020	\$11.13	\$11.20	-0.61%	0.78%	0.94%	0.15%	-0.76%	-0.06
10/2/2020	\$10.46	\$11.13	-6.21%	-0.78%	-2.21%	0.03%	-6.23%	-0.48
10/5/2020	\$11.31	\$10.46	7.83%	1.81%	4.30%	-0.41%	8.24%	0.63
10/6/2020	\$11.08	\$11.31	-2.08%	-1.20%	-1.18%	-1.09%	-0.99%	-0.08
10/7/2020	\$11.78	\$11.08	6.19%	1.69%	2.18%	0.67%	5.51%	0.42
10/8/2020	\$11.97	\$11.78	1.58%	0.85%	0.26%	0.59%	0.99%	0.08
10/9/2020	\$11.62	\$11.97	-2.97%	0.85%	0.79%	0.38%	-3.35%	-0.26
10/12/2020	\$11.16	\$11.62	-4.06%	1.34%	0.73%	0.93%	-4.99%	-0.39
10/13/2020	\$10.99	\$11.16	-1.57%	-0.50%	0.49%	-1.03%	-0.55%	-0.04
10/14/2020	\$10.79	\$10.99	-1.83%	-0.60%	-1.28%	-0.42%	-1.41%	-0.11
10/15/2020	\$10.62	\$10.79	-1.54%	-0.08%	-2.35%	0.58%	-2.12%	-0.17
10/16/2020	\$10.28	\$10.62	-3.27%	-0.07%	0.49%	-0.57%	-2.70%	-0.21
10/19/2020	\$9.66	\$10.28	-6.20%	-1.43%	-1.82%	-1.15%	-5.05%	-0.40
10/20/2020	\$9.22	\$9.66	-4.64%	0.38%	-0.59%	0.29%	-4.93%	-0.39
10/21/2020	\$8.76	\$9.22	-5.12%	-0.34%	-1.61%	-0.15%	-4.97%	-0.39
10/22/2020	\$8.65	\$8.76	-1.35%	0.61%	1.33%	-0.21%	-1.14%	-0.09
10/23/2020	\$9.18	\$8.65	6.02%	0.38%	0.26%	-0.09%	6.12%	0.49
10/26/2020	\$8.88	\$9.18	-3.34%	-1.83%	-0.92%	-1.98%	-1.36%	-0.11
10/27/2020	\$8.91	\$8.88	0.27%	-0.30%	0.52%	-0.88%	1.15%	0.09
10/28/2020	\$8.45	\$8.91	-5.24%	-3.34%	-2.57%	-3.01%	-2.22%	-0.18
10/29/2020	\$8.54	\$8.45	1.00%	1.04%	0.62%	0.51%	0.49%	0.04
10/30/2020	\$8.02	\$8.54	-6.28%	-1.32%	-2.16%	-1.04%	-5.24%	-0.42
11/2/2020	\$8.71	\$8.02	8.29%	1.20%	0.10%	0.83%	7.46%	0.60
11/3/2020	\$8.99	\$8.71	3.19%	1.86%	1.67%	1.06%	2.12%	0.17
11/4/2020	\$11.31	\$8.99	22.90%	1.94%	6.02%	-0.36%	23.26%	1.88 *
11/5/2020	\$10.25	\$11.31	-9.82%	2.09%	-0.11%	1.94%	-11.77%	-0.95
11/6/2020	\$10.42	\$10.25	1.69%	0.00%	-1.57%	0.01%	1.68%	0.14
11/9/2020	\$10.01	\$10.42	-4.10%	1.06%	-0.73%	0.87%	-4.96%	-0.40
11/10/2020	\$9.73	\$10.01	-2.75%	-0.06%	0.19%	-0.54%	-2.22%	-0.18
11/11/2020	\$10.60	\$9.73	8.51%	0.80%	1.18%	0.04%	8.47%	0.69
11/12/2020	\$10.87	\$10.60	2.57%	-0.97%	-0.01%	-1.35%	3.92%	0.32
11/13/2020	\$8.24	\$10.87	-27.70%	1.32%	1.25%	0.60%	-28.30%	-2.31 **
11/16/2020	\$8.09	\$8.24	-1.94%	1.23%	0.00%	0.80%	-2.75%	-0.22
11/17/2020	\$7.92	\$8.09	-2.11%	-0.15%	-0.44%	-0.44%	-1.66%	-0.14
11/18/2020	\$7.44	\$7.92	-6.23%	-0.91%	-1.96%	-0.84%	-5.39%	-0.44
11/19/2020	\$7.44	\$7.44	0.06%	0.58%	0.14%	0.09%	-0.03%	0.00
11/20/2020	\$7.30	\$7.44	-1.99%	-0.43%	0.62%	-0.96%	-1.03%	-0.09
11/23/2020	\$7.07	\$7.30	-3.20%	0.79%	0.24%	0.27%	-3.47%	-0.29
11/24/2020	\$7.18	\$7.07	1.53%	1.50%	-0.66%	1.09%	0.44%	0.04
11/25/2020	\$7.52	\$7.18	4.72%	0.02%	0.54%	-0.54%	5.26%	0.44
11/27/2020	\$7.73	\$7.52	2.78%	0.40%	3.06%	-0.64%	3.42%	0.28
11/30/2020	\$7.57	\$7.73	-2.18%	-0.58%	1.09%	-1.11%	-1.08%	-0.09
12/1/2020	\$7.38	\$7.57	-2.55%	0.96%	0.37%	0.40%	-2.96%	-0.25
12/2/2020	\$7.20	\$7.38	-2.36%	0.12%	-0.28%	-0.27%	-2.08%	-0.17

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
12/3/2020	\$7.35	\$7.20	2.06%	0.23%	0.89%	-0.37%	2.44%	0.20
12/4/2020	\$7.58	\$7.35	2.95%	1.04%	1.00%	0.36%	2.59%	0.22
12/7/2020	\$7.46	\$7.58	-1.59%	-0.02%	-0.04%	-0.43%	-1.16%	-0.10
12/8/2020	\$7.77	\$7.46	4.14%	0.43%	1.70%	-0.29%	4.44%	0.37
12/9/2020	\$7.79	\$7.77	0.19%	-0.96%	-1.78%	-1.01%	1.20%	0.10
12/10/2020	\$7.59	\$7.79	-2.50%	0.26%	1.47%	-0.36%	-2.14%	-0.18
12/11/2020	\$8.01	\$7.59	5.28%	-0.23%	0.21%	-0.64%	5.92%	0.50
12/14/2020	\$7.71	\$8.01	-3.81%	-0.33%	2.38%	-1.00%	-2.81%	-0.24
12/15/2020	\$7.92	\$7.71	2.71%	1.30%	0.08%	0.78%	1.93%	0.16
12/16/2020	\$7.87	\$7.92	-0.57%	0.14%	-0.63%	-0.15%	-0.42%	-0.04
12/17/2020	\$8.26	\$7.87	4.82%	0.79%	1.38%	0.11%	4.70%	0.40
12/18/2020	\$8.03	\$8.26	-2.88%	-0.21%	0.40%	-0.62%	-2.26%	-0.19
12/21/2020	\$7.67	\$8.03	-4.54%	-0.29%	0.47%	-0.72%	-3.83%	-0.33
12/22/2020	\$7.53	\$7.67	-1.85%	0.06%	0.27%	-0.38%	-1.47%	-0.13
12/23/2020	\$7.53	\$7.53	0.06%	0.14%	0.30%	-0.31%	0.37%	0.03
12/24/2020	\$7.56	\$7.53	0.31%	0.23%	-0.78%	-0.05%	0.35%	0.03
12/28/2020	\$7.19	\$7.56	-5.01%	0.38%	-1.55%	0.23%	-5.24%	-0.45
12/29/2020	\$6.78	\$7.19	-5.88%	-0.37%	-1.19%	-0.53%	-5.35%	-0.46
12/30/2020	\$6.93	\$6.78	2.22%	0.33%	0.46%	-0.18%	2.40%	0.21
12/31/2020	\$6.77	\$6.93	-2.26%	0.36%	-0.67%	0.02%	-2.29%	-0.20
1/4/2021	\$6.98	\$6.77	2.94%	-1.32%	-0.59%	-1.52%	4.46%	0.39
1/5/2021	\$7.55	\$6.98	7.91%	0.90%	0.15%	0.39%	7.52%	0.66
1/6/2021	\$8.04	\$7.55	6.24%	0.80%	1.30%	0.17%	6.07%	0.53
1/7/2021	\$8.26	\$8.04	2.68%	1.61%	2.88%	0.72%	1.97%	0.17
1/8/2021	\$8.27	\$8.26	0.12%	0.47%	0.61%	0.01%	0.11%	0.01
1/11/2021	\$8.17	\$8.27	-1.18%	-0.57%	-0.14%	-0.82%	-0.36%	-0.03
1/12/2021	\$8.12	\$8.17	-0.65%	0.42%	0.24%	0.02%	-0.67%	-0.06
1/13/2021	\$11.37	\$8.12	33.70%	0.09%	-0.22%	-0.22%	33.93%	3.00 ***
1/14/2021	\$10.32	\$11.37	-9.62%	0.00%	2.41%	-0.60%	-9.02%	-0.78
1/15/2021	\$10.47	\$10.32	1.38%	-0.86%	-0.08%	-1.06%	2.44%	0.21
1/19/2021	\$12.81	\$10.47	20.20%	0.85%	1.89%	0.18%	20.02%	1.74 *
1/20/2021	\$12.13	\$12.81	-5.50%	1.20%	0.25%	0.94%	-6.44%	-0.56
1/21/2021	\$11.92	\$12.13	-1.71%	-0.09%	-1.05%	-0.10%	-1.61%	-0.14
1/22/2021	\$12.70	\$11.92	6.35%	-0.15%	0.91%	-0.44%	6.78%	0.59
1/25/2021	\$15.45	\$12.70	19.59%	0.24%	1.71%	-0.13%	19.72%	1.70 *
1/26/2021	\$19.13	\$15.45	21.36%	-0.29%	-1.81%	-0.10%	21.46%	1.85 *
1/27/2021	\$19.59	\$19.13	2.37%	-2.51%	-3.04%	-1.72%	4.09%	0.35
1/28/2021	\$18.27	\$19.59	-6.95%	0.92%	0.35%	0.81%	-7.76%	-0.67
1/29/2021	\$19.27	\$18.27	5.32%	-1.78%	0.31%	-1.75%	7.06%	0.61
2/1/2021	\$22.44	\$19.27	15.22%	1.71%	1.16%	1.38%	13.84%	1.19
2/2/2021	\$56.45	\$22.44	92.26%	1.39%	1.06%	1.19%	91.07%	7.79 ***
2/3/2021	\$86.84	\$56.45	43.07%	0.14%	-0.33%	0.30%	42.77%	3.65 ***
2/4/2021	\$63.41	\$86.84	-31.44%	1.12%	1.44%	0.97%	-32.41%	-2.69 ***
2/5/2021	\$44.50	\$63.41	-35.41%	0.61%	1.66%	0.18%	-35.59%	-2.92 ***
2/8/2021	\$59.73	\$44.50	29.42%	0.97%	2.09%	0.10%	29.32%	2.36 **
2/9/2021	\$56.61	\$59.73	-5.37%	0.10%	-0.62%	0.41%	-5.78%	-0.46
2/10/2021	\$48.59	\$56.61	-15.27%	-0.03%	-0.85%	0.34%	-15.62%	-1.26
2/11/2021	\$47.85	\$48.59	-1.54%	0.19%	-0.19%	0.20%	-1.74%	-0.14
2/12/2021	\$45.74	\$47.85	-4.51%	0.47%	0.49%	0.22%	-4.73%	-0.38
2/16/2021	\$51.59	\$45.74	12.04%	-0.11%	-2.18%	0.70%	11.34%	0.91
2/17/2021	\$50.82	\$51.59	-1.50%	-0.23%	0.42%	-0.49%	-1.01%	-0.08
2/18/2021	\$50.31	\$50.82	-1.01%	-0.66%	-1.86%	0.00%	-1.02%	-0.08
2/19/2021	\$54.88	\$50.31	8.70%	0.27%	1.04%	-0.19%	8.89%	0.71
2/22/2021	\$52.27	\$54.88	-4.87%	-0.97%	-2.44%	-0.10%	-4.77%	-0.38
2/23/2021	\$51.55	\$52.27	-1.40%	-0.13%	-1.44%	0.38%	-1.78%	-0.14
2/24/2021	\$52.37	\$51.55	1.58%	1.12%	0.87%	0.77%	0.81%	0.06
2/25/2021	\$50.55	\$52.37	-3.54%	-2.70%	-2.59%	-1.86%	-1.67%	-0.13
2/26/2021	\$48.47	\$50.55	-4.20%	-0.39%	-0.02%	-0.42%	-3.78%	-0.30

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
3/1/2021	\$49.62	\$48.47	2.34%	2.45%	1.61%	1.86%	0.48%	0.04
3/2/2021	\$51.25	\$49.62	3.25%	-0.91%	-2.01%	-0.21%	3.46%	0.28
3/3/2021	\$48.47	\$51.25	-5.59%	-1.48%	-3.68%	-0.06%	-5.53%	-0.44
3/4/2021	\$44.05	\$48.47	-9.57%	-1.68%	-2.46%	-0.81%	-8.76%	-0.70
3/5/2021	\$42.83	\$44.05	-2.81%	1.72%	1.97%	0.96%	-3.76%	-0.30
3/8/2021	\$44.37	\$42.83	3.55%	-0.59%	-1.98%	-0.02%	3.57%	0.28
3/9/2021	\$51.44	\$44.37	14.77%	1.67%	2.92%	0.54%	14.23%	1.14
3/10/2021	\$51.15	\$51.44	-0.56%	0.68%	0.07%	0.60%	-1.17%	-0.09
3/11/2021	\$53.67	\$51.15	4.80%	1.41%	2.76%	0.47%	4.33%	0.35
3/12/2021	\$53.14	\$53.67	-0.98%	0.15%	-0.61%	0.46%	-1.44%	-0.12
3/15/2021	\$51.98	\$53.14	-2.21%	0.70%	1.49%	0.22%	-2.44%	-0.19
3/16/2021	\$51.89	\$51.98	-0.17%	-0.43%	0.00%	-0.25%	0.08%	0.01
3/17/2021	\$61.99	\$51.89	17.78%	0.36%	0.63%	0.16%	17.62%	1.41
3/18/2021	\$55.67	\$61.99	-10.75%	-1.81%	-3.26%	-0.46%	-10.29%	-0.82
3/19/2021	\$57.03	\$55.67	2.41%	0.18%	1.73%	-0.21%	2.61%	0.21
3/22/2021	\$54.98	\$57.03	-3.65%	0.48%	1.34%	0.07%	-3.73%	-0.30
3/23/2021	\$51.70	\$54.98	-6.16%	-1.21%	-4.02%	0.34%	-6.49%	-0.52
3/24/2021	\$48.41	\$51.70	-6.58%	-0.91%	-2.96%	0.09%	-6.67%	-0.53
3/25/2021	\$49.45	\$48.41	2.13%	0.65%	1.11%	0.28%	1.85%	0.15
3/26/2021	\$46.02	\$49.45	-7.18%	1.52%	0.27%	0.99%	-8.16%	-0.65
3/29/2021	\$44.09	\$46.02	-4.29%	-0.53%	-1.39%	-0.21%	-4.08%	-0.33
3/30/2021	\$43.43	\$44.09	-1.50%	0.00%	-0.36%	0.02%	-1.52%	-0.12
3/31/2021	\$44.47	\$43.43	2.36%	0.56%	2.51%	0.25%	2.11%	0.17
4/1/2021	\$45.98	\$44.47	3.33%	1.27%	0.83%	0.99%	2.35%	0.19
4/5/2021	\$44.42	\$45.98	-3.46%	1.14%	0.45%	0.94%	-4.40%	-0.35
4/6/2021	\$42.23	\$44.42	-5.04%	0.03%	-0.58%	0.03%	-5.07%	-0.41
4/7/2021	\$41.03	\$42.23	-2.88%	-0.15%	-1.78%	0.03%	-2.91%	-0.23
4/8/2021	\$41.61	\$41.03	1.41%	0.59%	0.32%	0.36%	1.04%	0.08
4/9/2021	\$41.11	\$41.61	-1.22%	0.55%	-0.38%	0.46%	-1.68%	-0.13
4/12/2021	\$35.63	\$41.11	-14.30%	-0.07%	-1.44%	0.06%	-14.36%	-1.15
4/13/2021	\$35.60	\$35.63	-0.08%	0.40%	1.75%	0.02%	-0.09%	-0.01
4/14/2021	\$35.28	\$35.60	-0.91%	-0.29%	1.51%	-0.75%	-0.16%	-0.01
4/15/2021	\$34.86	\$35.28	-1.19%	1.00%	1.26%	0.51%	-1.69%	-0.14
4/16/2021	\$34.63	\$34.86	-0.68%	0.26%	0.05%	0.03%	-0.71%	-0.06
4/19/2021	\$33.71	\$34.63	-2.67%	-0.70%	-1.09%	-0.66%	-2.01%	-0.16
4/20/2021	\$31.84	\$33.71	-5.71%	-0.91%	0.02%	-1.12%	-4.59%	-0.37
4/21/2021	\$34.47	\$31.84	7.93%	1.12%	2.00%	0.42%	7.51%	0.60
4/22/2021	\$35.81	\$34.47	3.83%	-0.73%	-0.16%	-0.94%	4.77%	0.38
4/23/2021	\$39.18	\$35.81	8.98%	1.20%	0.46%	0.83%	8.15%	0.65
4/26/2021	\$41.30	\$39.18	5.26%	0.44%	2.02%	-0.32%	5.58%	0.45
4/27/2021	\$43.99	\$41.30	6.31%	-0.02%	-0.43%	-0.23%	6.54%	0.53
4/28/2021	\$46.75	\$43.99	6.08%	0.01%	-0.72%	-0.11%	6.19%	0.50
4/29/2021	\$47.19	\$46.75	0.94%	0.35%	-1.12%	0.36%	0.58%	0.05
4/30/2021	\$46.36	\$47.19	-1.77%	-0.80%	-0.03%	-0.97%	-0.79%	-0.06
5/3/2021	\$42.76	\$46.36	-8.10%	0.20%	-0.03%	-0.04%	-8.06%	-0.65
5/4/2021	\$40.90	\$42.76	-4.43%	-0.85%	-3.10%	-0.47%	-3.97%	-0.32
5/5/2021	\$41.59	\$40.90	1.67%	-0.01%	-0.80%	-0.15%	1.82%	0.15
5/6/2021	\$41.37	\$41.59	-0.54%	0.48%	-0.36%	0.22%	-0.75%	-0.06
5/7/2021	\$40.97	\$41.37	-0.95%	0.86%	0.90%	0.32%	-1.27%	-0.10
5/10/2021	\$38.34	\$40.97	-6.66%	-1.24%	-1.85%	-1.08%	-5.58%	-0.45
5/11/2021	\$39.10	\$38.34	1.99%	-0.66%	0.53%	-1.02%	3.01%	0.24
5/12/2021	\$37.28	\$39.10	-4.77%	-2.28%	-0.93%	-2.26%	-2.52%	-0.20
5/13/2021	\$37.65	\$37.28	0.98%	0.97%	0.01%	0.48%	0.49%	0.04
5/14/2021	\$40.61	\$37.65	7.58%	1.74%	2.21%	0.53%	7.05%	0.57
5/17/2021	\$43.45	\$40.61	6.76%	-0.14%	0.39%	-0.51%	7.27%	0.59
5/18/2021	\$46.54	\$43.45	6.86%	-0.60%	0.27%	0.39%	6.46%	0.74
5/19/2021	\$47.45	\$46.54	1.95%	-0.38%	-1.04%	-0.44%	2.38%	0.27
5/20/2021	\$48.86	\$47.45	2.93%	1.11%	2.26%	2.10%	0.83%	0.09

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
5/21/2021	\$49.76	\$48.86	1.82%	-0.03%	-0.69%	-0.12%	1.94%	0.22
5/24/2021	\$47.89	\$49.76	-3.82%	0.93%	-0.57%	0.07%	-3.89%	-0.45
5/25/2021	\$47.38	\$47.89	-1.08%	-0.27%	-0.62%	-0.06%	-1.02%	-0.12
5/26/2021	\$50.66	\$47.38	6.69%	0.45%	0.62%	0.89%	5.81%	0.67
5/27/2021	\$54.77	\$50.66	7.80%	0.29%	0.42%	0.77%	7.03%	0.81
5/28/2021	\$53.43	\$54.77	-2.47%	0.10%	0.43%	0.80%	-3.27%	-0.37
6/1/2021	\$56.36	\$53.43	5.34%	0.17%	-0.67%	-0.06%	5.40%	0.62
6/2/2021	\$60.18	\$56.36	6.55%	0.17%	0.32%	0.68%	5.87%	0.67
6/3/2021	\$61.48	\$60.18	2.14%	-0.52%	-0.11%	0.39%	1.75%	0.20
6/4/2021	\$63.83	\$61.48	3.75%	0.84%	1.23%	1.37%	2.38%	0.30
6/7/2021	\$67.14	\$63.83	5.06%	0.16%	3.56%	4.48%	0.58%	0.08
6/8/2021	\$68.63	\$67.14	2.19%	0.18%	-0.09%	0.26%	1.93%	0.25
6/9/2021	\$66.07	\$68.63	-3.81%	-0.29%	1.40%	2.36%	-6.16%	-0.80
6/10/2021	\$65.99	\$66.07	-0.12%	0.40%	1.74%	2.19%	-2.31%	-0.30
6/11/2021	\$76.64	\$65.99	14.97%	0.31%	-0.74%	-0.57%	15.54%	2.03 **
6/14/2021	\$75.10	\$76.64	-2.03%	0.13%	-0.08%	0.36%	-2.39%	-0.31
6/15/2021	\$71.71	\$75.10	-4.62%	-0.30%	-1.63%	-1.14%	-3.49%	-0.45
6/16/2021	\$79.85	\$71.71	10.76%	-0.47%	-0.76%	-0.15%	10.90%	1.41
6/17/2021	\$78.22	\$79.85	-2.07%	-0.14%	0.67%	1.31%	-3.38%	-0.44
6/18/2021	\$79.10	\$78.22	1.13%	-1.26%	-0.31%	0.75%	0.38%	0.05
6/21/2021	\$89.40	\$79.10	12.24%	1.35%	0.82%	0.83%	11.41%	1.47
6/22/2021	\$77.35	\$89.40	-14.48%	0.49%	0.20%	0.55%	-15.04%	-1.94 *
6/23/2021	\$77.29	\$77.35	-0.07%	-0.01%	-0.35%	0.15%	-0.22%	-0.03
6/24/2021	\$81.09	\$77.29	4.80%	0.65%	1.26%	1.67%	3.13%	0.40
6/25/2021	\$78.39	\$81.09	-3.38%	0.32%	0.79%	1.26%	-4.64%	-0.61
6/28/2021	\$84.81	\$78.39	7.87%	0.11%	0.19%	0.66%	7.21%	0.94
6/29/2021	\$82.48	\$84.81	-2.78%	0.00%	-0.02%	0.42%	-3.21%	-0.42
6/30/2021	\$84.77	\$82.48	2.73%	0.04%	0.35%	0.84%	1.89%	0.25
7/1/2021	\$88.45	\$84.77	4.25%	0.42%	1.16%	1.66%	2.59%	0.34
7/2/2021	\$89.59	\$88.45	1.28%	0.50%	-0.45%	0.03%	1.26%	0.17
7/6/2021	\$92.14	\$89.59	2.81%	-0.30%	-1.50%	-1.06%	3.86%	0.51
7/7/2021	\$96.29	\$92.14	4.41%	0.11%	-1.32%	-0.84%	5.25%	0.69
7/8/2021	\$105.47	\$96.29	9.10%	-0.90%	0.49%	1.05%	8.05%	1.06
7/9/2021	\$94.78	\$105.47	-10.69%	1.28%	0.84%	1.39%	-12.08%	-1.59
7/12/2021	\$98.63	\$94.78	3.98%	0.22%	-0.44%	0.03%	3.95%	0.52
7/13/2021	\$103.30	\$98.63	4.63%	-0.60%	-1.09%	-0.55%	5.18%	0.68
7/14/2021	\$96.89	\$103.30	-6.40%	-0.24%	-1.26%	-0.85%	-5.55%	-0.73
7/15/2021	\$82.22	\$96.89	-16.42%	-0.39%	-0.01%	0.54%	-16.96%	-2.24 **
7/16/2021	\$79.60	\$82.22	-3.24%	-0.76%	1.07%	1.68%	-4.92%	-0.64
7/19/2021	\$81.90	\$79.60	2.85%	-1.47%	0.77%	1.19%	1.67%	0.22
7/20/2021	\$90.39	\$81.90	9.86%	1.68%	1.32%	2.00%	7.86%	1.03
7/21/2021	\$116.57	\$90.39	25.43%	0.96%	0.60%	1.28%	24.15%	3.16 ***
7/22/2021	\$125.67	\$116.57	7.52%	0.03%	-0.13%	0.43%	7.09%	0.91
7/23/2021	\$122.87	\$125.67	-2.25%	0.89%	0.79%	1.69%	-3.94%	-0.50
7/26/2021	\$119.30	\$122.87	-2.95%	0.16%	-2.03%	-1.80%	-1.16%	-0.15
7/27/2021	\$126.87	\$119.30	6.15%	-0.60%	-0.93%	-0.66%	6.81%	0.87
7/28/2021	\$134.46	\$126.87	5.81%	0.30%	2.92%	4.33%	1.48%	0.19
7/29/2021	\$102.40	\$134.46	-27.24%	0.45%	-0.84%	-0.41%	-26.83%	-3.44 ***
7/30/2021	\$69.60	\$102.40	-38.61%	-0.56%	-0.14%	0.40%	-39.01%	-4.99 ***
8/2/2021	\$79.74	\$69.60	13.60%	-0.14%	-0.01%	0.42%	13.18%	1.61
8/3/2021	\$84.28	\$79.74	5.54%	0.68%	2.17%	3.36%	2.18%	0.26
8/4/2021	\$87.76	\$84.28	4.04%	-0.40%	1.37%	2.22%	1.82%	0.22
8/5/2021	\$100.98	\$87.76	14.03%	0.71%	1.82%	3.03%	11.01%	1.33
8/6/2021	\$96.17	\$100.98	-4.88%	0.08%	-1.51%	-1.46%	-3.42%	-0.41
8/9/2021	\$104.72	\$96.17	8.52%	-0.04%	2.56%	4.04%	4.48%	0.54
8/10/2021	\$108.25	\$104.72	3.31%	0.07%	-1.64%	-1.67%	4.98%	0.60
8/11/2021	\$108.63	\$108.25	0.35%	0.24%	-3.04%	-3.68%	4.04%	0.49
8/12/2021	\$119.69	\$108.63	9.69%	0.20%	0.85%	1.79%	7.90%	0.96

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
8/13/2021	\$121.82	\$119.69	1.77%	0.03%	-0.06%	0.56%	1.21%	0.15
8/16/2021	\$116.87	\$121.82	-4.15%	-0.08%	-1.38%	-1.17%	-2.98%	-0.36
8/17/2021	\$104.49	\$116.87	-11.19%	-0.79%	1.99%	3.27%	-14.46%	-1.77 *
8/18/2021	\$106.12	\$104.49	1.55%	-0.89%	-1.37%	-1.31%	2.85%	0.35
8/19/2021	\$101.57	\$106.12	-4.38%	-0.23%	-2.57%	-2.53%	-1.85%	-0.22
8/20/2021	\$104.07	\$101.57	2.43%	0.86%	1.64%	2.77%	-0.34%	-0.04
8/23/2021	\$115.80	\$104.07	10.68%	1.05%	3.09%	4.60%	6.08%	0.74
8/24/2021	\$117.47	\$115.80	1.43%	0.42%	-0.34%	0.29%	1.14%	0.14
8/25/2021	\$81.14	\$117.47	-37.00%	0.26%	0.47%	1.30%	-38.30%	-4.67 ***
8/26/2021	\$70.71	\$81.14	-13.76%	-0.65%	-0.65%	-0.34%	-13.42%	-1.64
8/27/2021	\$58.31	\$70.71	-19.28%	1.09%	0.33%	1.40%	-20.69%	-2.51 **
8/30/2021	\$53.19	\$58.31	-9.19%	0.30%	-0.23%	0.47%	-9.66%	-1.17
8/31/2021	\$56.83	\$53.19	6.62%	-0.11%	0.62%	1.28%	5.35%	0.65
9/1/2021	\$52.07	\$56.83	-8.75%	0.20%	1.02%	1.87%	-10.62%	-1.28
9/2/2021	\$54.21	\$52.07	4.03%	0.41%	1.06%	1.93%	2.10%	0.25
9/3/2021	\$50.16	\$54.21	-7.76%	-0.01%	-0.19%	0.38%	-8.14%	-0.98
9/7/2021	\$47.89	\$50.16	-4.63%	-0.42%	-0.27%	0.06%	-4.68%	-0.56
9/8/2021	\$46.43	\$47.89	-3.10%	-0.35%	-1.06%	-0.80%	-2.30%	-0.28
9/9/2021	\$49.71	\$46.43	6.83%	-0.29%	0.31%	0.70%	6.13%	0.74
9/10/2021	\$50.69	\$49.71	1.95%	-0.73%	-0.52%	-0.46%	2.41%	0.29
9/13/2021	\$47.04	\$50.69	-7.48%	0.20%	-1.22%	-0.68%	-6.80%	-0.81
9/14/2021	\$41.91	\$47.04	-11.54%	-0.62%	-0.27%	-0.12%	-11.41%	-1.36
9/15/2021	\$43.92	\$41.91	4.67%	0.85%	0.95%	2.13%	2.54%	0.30
9/16/2021	\$44.07	\$43.92	0.35%	-0.09%	0.50%	1.13%	-0.78%	-0.09
9/17/2021	\$48.26	\$44.07	9.08%	-0.74%	0.59%	0.83%	8.25%	0.99
9/20/2021	\$48.05	\$48.26	-0.45%	-1.84%	-2.22%	-2.96%	2.52%	0.30
9/21/2021	\$52.66	\$48.05	9.17%	0.09%	1.00%	1.60%	7.57%	0.94
9/22/2021	\$52.02	\$52.66	-1.23%	0.99%	-0.13%	1.21%	-2.43%	-0.30
9/23/2021	\$60.16	\$52.02	14.54%	1.20%	1.40%	2.95%	11.58%	1.44
9/24/2021	\$61.76	\$60.16	2.63%	-0.01%	-1.89%	-1.48%	4.12%	0.51
9/27/2021	\$67.75	\$61.76	9.25%	-0.10%	-0.78%	-0.32%	9.57%	1.18
9/28/2021	\$64.42	\$67.75	-5.04%	-2.10%	-3.01%	-3.92%	-1.12%	-0.14
9/29/2021	\$61.59	\$64.42	-4.50%	-0.01%	-0.43%	0.09%	-4.59%	-0.57
9/30/2021	\$61.64	\$61.59	0.08%	-0.95%	0.20%	-0.01%	0.09%	0.01
10/1/2021	\$59.64	\$61.64	-3.30%	1.06%	-1.76%	-0.46%	-2.84%	-0.35
10/4/2021	\$53.97	\$59.64	-9.98%	-1.30%	-2.00%	-2.47%	-7.51%	-0.93
10/5/2021	\$56.42	\$53.97	4.43%	0.95%	0.16%	1.35%	3.08%	0.38
10/6/2021	\$51.75	\$56.42	-8.63%	0.28%	-1.17%	-0.42%	-8.21%	-1.02
10/7/2021	\$52.93	\$51.75	2.25%	0.99%	1.25%	2.47%	-0.22%	-0.03
10/8/2021	\$50.97	\$52.93	-3.78%	-0.25%	-0.53%	-0.18%	-3.60%	-0.45
10/11/2021	\$50.48	\$50.97	-0.96%	-0.64%	-0.03%	0.01%	-0.97%	-0.12
10/12/2021	\$51.15	\$50.48	1.31%	0.02%	0.10%	0.63%	0.67%	0.08
10/13/2021	\$54.37	\$51.15	6.11%	0.48%	0.42%	1.33%	4.78%	0.59
10/14/2021	\$52.70	\$54.37	-3.12%	1.58%	1.31%	3.11%	-6.22%	-0.77
10/15/2021	\$49.27	\$52.70	-6.73%	0.57%	-0.68%	0.31%	-7.04%	-0.87
10/18/2021	\$49.63	\$49.27	0.73%	0.33%	-1.29%	-0.55%	1.29%	0.16
10/19/2021	\$46.84	\$49.63	-5.80%	0.68%	1.11%	2.13%	-7.93%	-0.98
10/20/2021	\$45.78	\$46.84	-2.28%	0.39%	-0.07%	0.71%	-2.99%	-0.37
10/21/2021	\$46.20	\$45.78	0.91%	0.29%	0.72%	1.44%	-0.53%	-0.07
10/22/2021	\$45.16	\$46.20	-2.27%	-0.17%	-0.45%	0.01%	-2.28%	-0.28
10/25/2021	\$47.36	\$45.16	4.76%	0.55%	1.10%	1.98%	2.78%	0.34
10/26/2021	\$46.73	\$47.36	-1.33%	-0.01%	-0.02%	0.52%	-1.85%	-0.23
10/27/2021	\$44.36	\$46.73	-5.20%	-0.76%	-1.65%	-1.54%	-3.66%	-0.45
10/28/2021	\$44.01	\$44.36	-0.80%	1.12%	1.90%	3.12%	-3.92%	-0.48
10/29/2021	\$42.82	\$44.01	-2.73%	0.10%	-0.34%	0.24%	-2.97%	-0.37
11/1/2021	\$45.43	\$42.82	5.91%	0.57%	1.59%	2.41%	3.50%	0.43
11/2/2021	\$57.47	\$45.43	23.51%	0.20%	0.78%	1.42%	22.09%	2.72 ***
11/3/2021	\$56.22	\$57.47	-2.19%	0.73%	1.71%	2.76%	-4.95%	-0.60

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
11/4/2021	\$83.03	\$56.22	38.98%	0.29%	-1.78%	-1.11%	40.09%	4.86 ***
11/5/2021	\$89.16	\$83.03	7.13%	0.40%	-2.69%	-2.00%	9.13%	1.11
11/8/2021	\$87.94	\$89.16	-1.38%	0.20%	0.07%	0.89%	-2.26%	-0.28
11/9/2021	\$77.06	\$87.94	-13.21%	-0.29%	-1.08%	-0.52%	-12.69%	-1.54
11/10/2021	\$68.41	\$77.06	-11.90%	-1.05%	-1.33%	-1.46%	-10.44%	-1.26
11/11/2021	\$71.56	\$68.41	4.50%	0.24%	-0.21%	0.61%	3.89%	0.47
11/12/2021	\$67.58	\$71.56	-5.72%	0.71%	0.12%	1.31%	-7.02%	-0.85
11/15/2021	\$59.88	\$67.58	-12.11%	-0.03%	-0.45%	0.09%	-12.19%	-1.47
11/16/2021	\$61.00	\$59.88	1.86%	0.40%	0.08%	0.89%	0.97%	0.12
11/17/2021	\$46.64	\$61.00	-26.85%	-0.45%	-0.09%	-0.01%	-26.83%	-3.23 ***
11/18/2021	\$47.94	\$46.64	2.76%	0.03%	-0.34%	0.10%	2.65%	0.31
11/19/2021	\$52.70	\$47.94	9.47%	-0.29%	0.52%	0.51%	8.96%	1.05
11/22/2021	\$52.07	\$52.70	-1.21%	-0.62%	-0.68%	-0.78%	-0.43%	-0.05
11/23/2021	\$51.97	\$52.07	-0.19%	-0.03%	-0.37%	0.09%	-0.28%	-0.03
11/24/2021	\$57.15	\$51.97	9.51%	0.32%	0.22%	0.97%	8.54%	1.00
11/26/2021	\$55.43	\$57.15	-3.06%	-2.26%	0.41%	-1.51%	-1.55%	-0.18
11/29/2021	\$54.08	\$55.43	-2.47%	1.00%	0.46%	1.94%	-4.41%	-0.52
11/30/2021	\$52.94	\$54.08	-2.13%	-1.93%	-0.89%	-2.32%	0.20%	0.02
12/1/2021	\$48.40	\$52.94	-8.96%	-1.52%	-2.26%	-3.03%	-5.93%	-0.69
12/2/2021	\$47.90	\$48.40	-1.04%	1.53%	0.42%	2.49%	-3.53%	-0.41
12/3/2021	\$45.40	\$47.90	-5.36%	-1.14%	-2.35%	-2.83%	-2.53%	-0.30
12/6/2021	\$43.55	\$45.40	-4.17%	1.17%	-1.56%	0.29%	-4.46%	-0.52
12/7/2021	\$47.09	\$43.55	7.83%	2.13%	3.81%	6.09%	1.74%	0.20
12/8/2021	\$49.31	\$47.09	4.60%	0.43%	1.20%	2.00%	2.60%	0.30
12/9/2021	\$45.43	\$49.31	-8.18%	-1.08%	-2.23%	-2.75%	-5.43%	-0.63
12/10/2021	\$43.82	\$45.43	-3.62%	0.61%	-1.27%	-0.20%	-3.42%	-0.40
12/13/2021	\$44.61	\$43.82	1.81%	-0.99%	1.30%	0.75%	1.06%	0.12
12/14/2021	\$46.47	\$44.61	4.08%	-0.77%	-0.16%	-0.53%	4.61%	0.54
12/15/2021	\$45.22	\$46.47	-2.73%	1.49%	2.22%	4.18%	-6.91%	-0.81
12/16/2021	\$43.40	\$45.22	-4.11%	-1.01%	-1.06%	-1.56%	-2.55%	-0.30
12/17/2021	\$42.91	\$43.40	-1.15%	-0.63%	2.58%	2.63%	-3.78%	-0.44
12/20/2021	\$36.55	\$42.91	-16.05%	-1.24%	-0.90%	-1.65%	-14.39%	-1.68 *
12/21/2021	\$43.03	\$36.55	16.34%	1.97%	0.66%	2.98%	13.36%	1.55
12/22/2021	\$43.31	\$43.03	0.65%	0.95%	-0.37%	0.91%	-0.26%	-0.03
12/23/2021	\$43.81	\$43.31	1.13%	0.68%	0.89%	1.95%	-0.82%	-0.09
12/27/2021	\$46.21	\$43.81	5.35%	1.20%	-1.46%	0.01%	5.34%	0.62
12/28/2021	\$43.77	\$46.21	-5.43%	-0.24%	-0.74%	-0.61%	-4.82%	-0.56
12/29/2021	\$42.46	\$43.77	-3.05%	0.06%	0.41%	0.82%	-3.87%	-0.45
12/30/2021	\$43.47	\$42.46	2.36%	-0.10%	0.51%	0.75%	1.61%	0.19
12/31/2021	\$43.23	\$43.47	-0.56%	-0.24%	-0.87%	-0.74%	0.18%	0.02
1/3/2022	\$47.22	\$43.23	8.84%	0.61%	0.70%	1.70%	7.14%	0.83
1/4/2022	\$47.44	\$47.22	0.46%	-0.24%	-2.49%	-2.30%	2.76%	0.32
1/5/2022	\$49.00	\$47.44	3.25%	-2.21%	-3.94%	-5.85%	9.10%	1.06
1/6/2022	\$48.60	\$49.00	-0.83%	0.02%	-0.04%	0.37%	-1.20%	-0.14
1/7/2022	\$47.52	\$48.60	-2.24%	-0.42%	-0.94%	-0.89%	-1.35%	-0.16
1/10/2022	\$47.55	\$47.52	0.06%	-0.19%	1.04%	1.15%	-1.09%	-0.13
1/11/2022	\$49.26	\$47.55	3.52%	1.08%	1.15%	2.56%	0.96%	0.11
1/12/2022	\$48.00	\$49.26	-2.58%	0.18%	-1.53%	-0.80%	-1.78%	-0.21
1/13/2022	\$45.28	\$48.00	-5.83%	-1.45%	-2.29%	-3.35%	-2.48%	-0.30
1/14/2022	\$45.29	\$45.28	0.02%	0.02%	0.92%	1.28%	-1.26%	-0.15
1/18/2022	\$41.24	\$45.29	-9.37%	-1.95%	-3.93%	-5.64%	-3.74%	-0.45
1/19/2022	\$40.62	\$41.24	-1.50%	-0.94%	-1.05%	-1.75%	0.24%	0.03
1/20/2022	\$36.87	\$40.62	-9.69%	-1.11%	-1.14%	-2.00%	-7.68%	-0.94
1/21/2022	\$35.66	\$36.87	-3.34%	-2.01%	-1.59%	-3.49%	0.15%	0.02
1/24/2022	\$38.45	\$35.66	7.52%	0.42%	0.84%	1.42%	6.10%	0.74
1/25/2022	\$39.28	\$38.45	2.13%	-1.25%	-1.42%	-2.57%	4.70%	0.58
1/26/2022	\$38.54	\$39.28	-1.90%	-0.36%	-1.17%	-1.49%	-0.41%	-0.05
1/27/2022	\$36.94	\$38.54	-4.25%	-0.81%	-1.82%	-2.75%	-1.49%	-0.19

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
1/28/2022	\$38.44	\$36.94	3.98%	2.22%	3.24%	5.93%	-1.94%	-0.24
1/31/2022	\$41.86	\$38.44	8.54%	2.22%	2.82%	5.53%	3.01%	0.38
2/1/2022	\$43.61	\$41.86	4.09%	0.85%	1.50%	2.41%	1.68%	0.21
2/2/2022	\$43.35	\$43.61	-0.60%	0.47%	-1.24%	-0.67%	0.07%	0.01
2/3/2022	\$42.83	\$43.35	-1.20%	-2.36%	-2.18%	-5.12%	3.92%	0.53
2/4/2022	\$45.19	\$42.83	5.35%	0.72%	0.44%	1.30%	4.04%	0.58
2/7/2022	\$44.40	\$45.19	-1.75%	-0.18%	1.01%	1.14%	-2.90%	-0.45
2/8/2022	\$44.40	\$44.40	0.00%	0.91%	0.09%	1.37%	-1.37%	-0.21
2/9/2022	\$46.42	\$44.40	4.46%	1.61%	2.49%	5.13%	-0.67%	-0.10
2/10/2022	\$50.74	\$46.42	8.89%	-1.64%	-2.43%	-4.72%	13.61%	2.12 **
2/11/2022	\$49.29	\$50.74	-2.90%	-1.78%	-0.96%	-2.95%	0.05%	0.01
2/14/2022	\$46.97	\$49.29	-4.82%	-0.41%	-1.81%	-2.25%	-2.57%	-0.40
2/15/2022	\$47.52	\$46.97	1.16%	1.75%	2.62%	5.36%	-4.20%	-0.65
2/16/2022	\$47.05	\$47.52	-0.99%	0.03%	-0.32%	-0.05%	-0.93%	-0.14
2/17/2022	\$43.99	\$47.05	-6.74%	-2.15%	-2.74%	-5.37%	-1.37%	-0.21
2/18/2022	\$44.02	\$43.99	0.07%	-0.83%	-1.21%	-2.13%	2.20%	0.34
2/22/2022	\$40.43	\$44.02	-8.49%	-1.13%	-0.48%	-1.64%	-6.85%	-1.06
2/23/2022	\$37.45	\$40.43	-7.66%	-1.82%	-2.09%	-4.37%	-3.28%	-0.51
2/24/2022	\$40.72	\$37.45	8.37%	1.60%	2.13%	4.57%	3.80%	0.59
2/25/2022	\$41.22	\$40.72	1.21%	2.19%	1.51%	4.79%	-3.58%	-0.55
2/28/2022	\$41.11	\$41.22	-0.27%	-0.04%	-0.37%	-0.26%	-0.01%	0.00
3/1/2022	\$39.07	\$41.11	-5.08%	-1.51%	-0.56%	-2.41%	-2.67%	-0.41
3/2/2022	\$39.57	\$39.07	1.26%	1.76%	0.78%	3.44%	-2.18%	-0.34
3/3/2022	\$36.18	\$39.57	-8.97%	-0.81%	-1.66%	-2.80%	-6.17%	-0.96
3/4/2022	\$36.30	\$36.18	0.34%	-1.02%	-1.33%	-2.71%	3.05%	0.47
3/7/2022	\$33.82	\$36.30	-7.08%	-2.96%	-1.08%	-5.06%	-2.02%	-0.31
3/8/2022	\$34.45	\$33.82	1.84%	-0.44%	0.30%	-0.10%	1.95%	0.30
3/9/2022	\$36.36	\$34.45	5.39%	2.59%	3.12%	7.13%	-1.74%	-0.27
3/10/2022	\$36.57	\$36.36	0.60%	-0.42%	-0.94%	-1.48%	2.07%	0.32
3/11/2022	\$35.20	\$36.57	-3.83%	-1.38%	-1.77%	-3.68%	-0.14%	-0.02
3/14/2022	\$31.86	\$35.20	-9.98%	-1.06%	-1.08%	-2.48%	-7.49%	-1.17
3/15/2022	\$33.69	\$31.86	5.59%	1.89%	1.31%	4.22%	1.37%	0.21
3/16/2022	\$35.93	\$33.69	6.44%	2.51%	3.62%	7.72%	-1.28%	-0.20
3/17/2022	\$37.93	\$35.93	5.41%	1.38%	2.18%	4.37%	1.05%	0.17
3/18/2022	\$37.83	\$37.93	-0.28%	1.22%	1.53%	3.41%	-3.68%	-0.58
3/21/2022	\$36.90	\$37.83	-2.49%	-0.17%	-1.37%	-1.65%	-0.85%	-0.13
3/22/2022	\$37.67	\$36.90	2.08%	1.17%	2.09%	3.95%	-1.87%	-0.30
3/23/2022	\$38.75	\$37.67	2.81%	-1.19%	-2.13%	-3.83%	6.64%	1.05
3/24/2022	\$39.47	\$38.75	1.85%	1.30%	1.36%	3.27%	-1.42%	-0.22
3/25/2022	\$39.08	\$39.47	-0.99%	0.31%	-1.63%	-1.19%	0.20%	0.03
3/28/2022	\$38.70	\$39.08	-0.97%	0.61%	0.49%	1.52%	-2.49%	-0.40
3/29/2022	\$38.67	\$38.70	-0.09%	1.46%	2.66%	4.88%	-4.97%	-0.79
3/30/2022	\$37.59	\$38.67	-2.85%	-0.77%	-1.30%	-2.22%	-0.63%	-0.10
3/31/2022	\$36.28	\$37.59	-3.53%	-1.46%	-0.34%	-2.26%	-1.27%	-0.20
4/1/2022	\$36.78	\$36.28	1.36%	0.45%	2.28%	3.00%	-1.63%	-0.26
4/4/2022	\$37.15	\$36.78	1.00%	0.83%	1.23%	2.54%	-1.53%	-0.24
4/5/2022	\$30.30	\$37.15	-20.38%	-1.49%	-1.67%	-3.61%	-16.76%	-2.67 ***
4/6/2022	\$28.35	\$30.30	-6.67%	-1.13%	0.26%	-1.45%	-5.22%	-0.82
4/7/2022	\$27.17	\$28.35	-4.22%	0.25%	0.83%	1.24%	-5.46%	-0.86
4/8/2022	\$26.25	\$27.17	-3.46%	-0.32%	-0.29%	-0.74%	-2.71%	-0.42
4/11/2022	\$25.39	\$26.25	-3.32%	-1.45%	-2.17%	-4.22%	0.90%	0.14
4/12/2022	\$25.48	\$25.39	0.35%	-0.27%	-0.53%	-0.82%	1.16%	0.18
4/13/2022	\$26.38	\$25.48	3.45%	1.33%	2.64%	4.64%	-1.19%	-0.19
4/14/2022	\$25.58	\$26.38	-3.06%	-1.18%	-1.13%	-2.84%	-0.22%	-0.03
4/18/2022	\$24.65	\$25.58	-3.73%	-0.21%	-2.90%	-2.75%	-0.98%	-0.16
4/19/2022	\$21.71	\$24.65	-12.67%	1.62%	0.80%	3.56%	-16.23%	-2.56 **
4/20/2022	\$19.76	\$21.71	-9.41%	-0.09%	0.26%	0.20%	-9.61%	-1.50
4/21/2022	\$17.89	\$19.76	-9.94%	-1.70%	-2.36%	-4.70%	-5.24%	-0.82

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
4/22/2022	\$18.37	\$17.89	2.64%	-2.67%	-2.27%	-6.27%	8.91%	1.39
4/25/2022	\$19.77	\$18.37	7.34%	0.53%	1.41%	2.08%	5.26%	0.82
4/26/2022	\$21.04	\$19.77	6.21%	-2.87%	-3.70%	-7.53%	13.74%	2.13 **
4/27/2022	\$20.42	\$21.04	-2.98%	0.13%	-0.36%	-0.13%	-2.85%	-0.44
4/28/2022	\$20.34	\$20.42	-0.39%	2.27%	-0.27%	2.58%	-2.98%	-0.46
4/29/2022	\$20.28	\$20.34	-0.29%	-3.41%	-2.27%	-6.28%	5.99%	0.92
5/2/2022	\$20.02	\$20.28	-1.28%	0.59%	1.39%	2.03%	-3.31%	-0.51
5/3/2022	\$20.36	\$20.02	1.66%	0.51%	0.47%	1.05%	0.61%	0.09
5/4/2022	\$20.28	\$20.36	-0.39%	2.76%	1.70%	4.73%	-5.13%	-0.79
5/5/2022	\$19.97	\$20.28	-1.52%	-3.70%	-4.12%	-7.89%	6.37%	0.98
5/6/2022	\$19.44	\$19.97	-2.71%	-0.84%	-3.91%	-4.61%	1.90%	0.29
5/9/2022	\$18.27	\$19.44	-6.23%	-3.61%	-5.05%	-8.34%	2.11%	0.33
5/10/2022	\$18.94	\$18.27	3.61%	0.13%	2.63%	2.66%	0.96%	0.15
5/11/2022	\$16.62	\$18.94	-13.06%	-1.73%	-3.68%	-5.06%	-8.00%	-1.23
5/12/2022	\$16.89	\$16.62	1.63%	0.15%	2.89%	3.06%	-1.42%	-0.22
5/13/2022	\$18.49	\$16.89	9.05%	2.66%	3.31%	5.82%	3.22%	0.50
5/16/2022	\$20.04	\$18.49	8.07%	-0.47%	0.57%	0.15%	7.92%	1.22
5/17/2022	\$21.77	\$20.04	8.28%	2.03%	2.97%	4.91%	3.37%	0.52
5/18/2022	\$21.39	\$21.77	-1.78%	-3.84%	-2.92%	-6.64%	4.85%	0.75
5/19/2022	\$23.05	\$21.39	7.48%	-0.21%	1.24%	1.09%	6.39%	0.98
5/20/2022	\$24.21	\$23.05	4.92%	0.00%	0.80%	0.89%	4.04%	0.62
5/23/2022	\$26.14	\$24.21	7.64%	1.63%	0.59%	2.08%	5.57%	0.85
5/24/2022	\$24.04	\$26.14	-8.38%	-1.07%	-1.59%	-2.52%	-5.86%	-0.90
5/25/2022	\$25.52	\$24.04	6.01%	1.11%	0.51%	1.66%	4.35%	0.66
5/26/2022	\$24.60	\$25.52	-3.70%	1.96%	0.59%	2.57%	-6.27%	-0.96
5/27/2022	\$25.64	\$24.60	4.16%	2.42%	2.72%	5.02%	-0.85%	-0.13
5/31/2022	\$29.17	\$25.64	12.87%	-0.70%	-2.29%	-2.98%	15.85%	2.43 **
6/1/2022	\$25.70	\$29.17	-12.65%	-0.70%	-1.04%	-1.59%	-11.06%	-1.68 *
6/2/2022	\$26.24	\$25.70	2.08%	2.01%	0.34%	2.18%	-0.10%	-0.02
6/3/2022	\$27.73	\$26.24	5.50%	-1.55%	0.46%	-1.00%	6.51%	0.98
6/6/2022	\$26.71	\$27.73	-3.75%	0.29%	-1.65%	-1.43%	-2.32%	-0.35
6/7/2022	\$27.53	\$26.71	3.05%	0.98%	2.70%	3.59%	-0.54%	-0.08
6/8/2022	\$26.91	\$27.53	-2.27%	-1.05%	0.40%	-0.51%	-1.76%	-0.27
6/9/2022	\$24.85	\$26.91	-7.99%	-2.39%	-3.78%	-5.95%	-2.04%	-0.31
6/10/2022	\$26.27	\$24.85	5.55%	-2.86%	-3.03%	-5.61%	11.16%	1.68 *
6/13/2022	\$21.38	\$26.27	-20.59%	-4.15%	-4.09%	-7.38%	-13.21%	-2.00 **
6/14/2022	\$23.06	\$21.38	7.56%	-0.35%	0.26%	-0.07%	7.63%	1.15
6/15/2022	\$25.15	\$23.06	8.70%	1.49%	2.32%	3.78%	4.92%	0.74
6/16/2022	\$24.59	\$25.15	-2.28%	-3.48%	-2.23%	-5.50%	3.22%	0.49
6/17/2022	\$25.32	\$24.59	2.94%	0.40%	3.90%	4.77%	-1.83%	-0.28
6/21/2022	\$24.59	\$25.32	-2.92%	2.23%	2.27%	4.33%	-7.25%	-1.10
6/22/2022	\$27.17	\$24.59	9.97%	-0.22%	1.39%	1.30%	8.67%	1.31
6/23/2022	\$28.83	\$27.17	5.94%	0.91%	3.86%	5.11%	0.83%	0.12
6/24/2022	\$28.67	\$28.83	-0.57%	2.94%	1.70%	4.10%	-4.67%	-0.70
6/27/2022	\$28.82	\$28.67	0.53%	-0.21%	-0.22%	-0.48%	1.01%	0.15
6/28/2022	\$27.61	\$28.82	-4.28%	-1.89%	-2.39%	-4.16%	-0.12%	-0.02
6/29/2022	\$27.90	\$27.61	1.03%	-0.27%	0.75%	0.63%	0.40%	0.06
6/30/2022	\$26.33	\$27.90	-5.76%	-0.90%	-0.79%	-1.61%	-4.15%	-0.63
7/1/2022	\$24.85	\$26.33	-5.81%	1.09%	2.15%	3.20%	-9.00%	-1.36
7/5/2022	\$24.69	\$24.85	-0.65%	0.20%	2.16%	2.46%	-3.10%	-0.47
7/6/2022	\$22.81	\$24.69	-7.91%	0.07%	0.24%	0.15%	-8.06%	-1.21
7/7/2022	\$23.32	\$22.81	2.19%	1.68%	2.38%	3.65%	-1.46%	-0.22
7/8/2022	\$22.80	\$23.32	-2.23%	-0.08%	0.50%	0.27%	-2.49%	-0.38
7/11/2022	\$21.72	\$22.80	-4.84%	-1.33%	-1.95%	-3.45%	-1.39%	-0.21
7/12/2022	\$21.64	\$21.72	-0.40%	-0.81%	-0.17%	-1.07%	0.68%	0.10
7/13/2022	\$21.87	\$21.64	1.06%	-0.34%	0.03%	-0.51%	1.57%	0.24
7/14/2022	\$21.84	\$21.87	-0.14%	-0.56%	-1.68%	-2.62%	2.49%	0.38
7/15/2022	\$22.46	\$21.84	2.82%	1.84%	1.80%	3.15%	-0.33%	-0.05



## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual	t-statistic
7/18/2022	\$22.09	\$22.46	-1.67%	-0.56%	-2.36%	-3.28%	1.61%	0.25
7/19/2022	\$22.85	\$22.09	3.38%	2.70%	2.79%	4.96%	-1.57%	-0.24
7/20/2022	\$22.84	\$22.85	-0.08%	0.78%	0.03%	0.42%	-0.49%	-0.08
7/21/2022	\$22.38	\$22.84	-2.00%	0.93%	0.18%	0.62%	-2.62%	-0.41
7/22/2022	\$21.85	\$22.38	-2.39%	-1.05%	-2.28%	-3.63%	1.24%	0.20
7/25/2022	\$20.45	\$21.85	-6.64%	0.20%	0.33%	0.12%	-6.75%	-1.09
7/26/2022	\$20.52	\$20.45	0.32%	-1.19%	0.06%	-1.06%	1.38%	0.22
7/27/2022	\$17.84	\$20.52	-14.00%	2.50%	1.03%	2.30%	-16.30%	-2.62 ***
7/28/2022	\$16.07	\$17.84	-10.45%	1.24%	-0.58%	-0.35%	-10.10%	-1.63
7/29/2022	\$15.62	\$16.07	-2.82%	1.33%	-0.62%	-0.50%	-2.32%	-0.37
8/1/2022	\$17.05	\$15.62	8.76%	-0.22%	-1.72%	-2.68%	11.43%	1.84 *
8/2/2022	\$18.43	\$17.05	7.78%	-0.53%	0.66%	0.27%	7.51%	1.31
8/3/2022	\$17.68	\$18.43	-4.17%	1.49%	3.87%	5.09%	-9.26%	-1.62
8/4/2022	\$16.39	\$17.68	-7.58%	-0.05%	2.35%	2.56%	-10.14%	-1.78 *
8/5/2022	\$16.68	\$16.39	1.76%	-0.04%	1.44%	1.25%	0.50%	0.09
8/8/2022	\$18.27	\$16.68	9.12%	0.12%	0.92%	0.65%	8.46%	1.49
8/9/2022	\$18.97	\$18.27	3.78%	-0.64%	-1.70%	-2.61%	6.38%	1.12
8/10/2022	\$18.98	\$18.97	0.05%	2.24%	2.17%	3.22%	-3.16%	-0.55
8/11/2022	\$18.94	\$18.98	-0.23%	-0.02%	-1.55%	-2.08%	1.85%	0.32
8/12/2022	\$19.58	\$18.94	3.33%	1.67%	1.18%	1.74%	1.58%	0.28
8/15/2022	\$19.09	\$19.58	-2.52%	0.28%	1.64%	1.47%	-3.99%	-0.70
8/16/2022	\$19.14	\$19.09	0.27%	0.19%	-1.35%	-1.81%	2.08%	0.37
8/17/2022	\$24.61	\$19.14	25.14%	-0.92%	-2.10%	-3.19%	28.32%	5.00 ***
8/18/2022	\$25.32	\$24.61	2.84%	0.27%	-1.20%	-1.67%	4.52%	0.80
8/19/2022	\$24.58	\$25.32	-2.98%	-1.47%	-0.78%	-1.98%	-1.00%	-0.18
8/22/2022	\$23.57	\$24.58	-4.20%	-2.05%	-1.57%	-3.16%	-1.04%	-0.19
8/23/2022	\$24.41	\$23.57	3.49%	-0.07%	0.05%	-0.39%	3.88%	0.69
8/24/2022	\$26.69	\$24.41	8.96%	0.39%	1.36%	1.24%	7.73%	1.38
8/25/2022	\$26.26	\$26.69	-1.65%	1.41%	0.14%	0.44%	-2.09%	-0.37
8/26/2022	\$28.39	\$26.26	7.80%	-3.24%	-3.41%	-5.75%	13.55%	2.41 **
8/29/2022	\$25.01	\$28.39	-12.68%	-0.65%	-0.65%	-1.27%	-11.41%	-2.03 **
8/30/2022	\$25.13	\$25.01	0.51%	-1.15%	-0.96%	-1.86%	2.36%	0.42
8/31/2022	\$24.93	\$25.13	-0.80%	-0.72%	0.21%	-0.39%	-0.41%	-0.07
9/1/2022	\$24.40	\$24.93	-2.15%	-0.11%	1.87%	1.68%	-3.83%	-0.68
9/2/2022	\$23.74	\$24.40	-2.75%	-0.86%	-1.61%	-2.45%	-0.30%	-0.05
9/6/2022	\$26.64	\$23.74	11.53%	-0.49%	-1.71%	-2.42%	13.95%	2.49 **
9/7/2022	\$27.90	\$26.64	4.62%	1.81%	2.89%	3.52%	1.10%	0.19
9/8/2022	\$28.25	\$27.90	1.25%	0.74%	3.19%	3.40%	-2.15%	-0.38
9/9/2022	\$31.40	\$28.25	10.56%	1.65%	0.93%	1.40%	9.16%	1.62
9/12/2022	\$31.69	\$31.40	0.92%	1.07%	0.20%	0.47%	0.46%	0.08
9/13/2022	\$29.60	\$31.69	-6.83%	-4.14%	-4.23%	-6.65%	-0.18%	-0.03
9/14/2022	\$31.19	\$29.60	5.25%	0.40%	0.90%	0.82%	4.42%	0.78
9/15/2022	\$30.07	\$31.19	-3.67%	-1.03%	0.26%	-0.53%	-3.14%	-0.56
9/16/2022	\$29.60	\$30.07	-1.57%	-0.96%	-0.98%	-1.77%	0.21%	0.04
9/19/2022	\$28.77	\$29.60	-2.85%	0.69%	-1.00%	-0.92%	-1.93%	-0.34
9/20/2022	\$37.00	\$28.77	25.16%	-1.23%	-0.73%	-1.74%	26.90%	4.79 ***
9/21/2022	\$35.67	\$37.00	-3.68%	-1.61%	-2.45%	-3.46%	-0.22%	-0.04
9/22/2022	\$48.55	\$35.67	30.83%	-1.15%	-0.52%	-1.35%	32.18%	5.50 ***
9/23/2022	\$39.49	\$48.55	-20.65%	-1.93%	-1.41%	-2.31%	-18.35%	-2.96 ***
9/26/2022	\$42.94	\$39.49	8.38%	-1.15%	-1.67%	-2.45%	10.82%	1.72 *
9/27/2022	\$43.71	\$42.94	1.77%	-0.07%	1.50%	1.32%	0.45%	0.07
9/28/2022	\$41.58	\$43.71	-4.99%	2.14%	4.21%	5.05%	-10.04%	-1.59
9/29/2022	\$40.89	\$41.58	-1.66%	-2.12%	-1.79%	-2.87%	1.21%	0.19
9/30/2022	\$39.71	\$40.89	-2.95%	-1.24%	-0.23%	-0.96%	-1.99%	-0.31
10/3/2022	\$39.12	\$39.71	-1.49%	2.51%	1.43%	2.24%	-3.72%	-0.59
10/4/2022	\$39.42	\$39.12	0.76%	3.19%	2.93%	3.91%	-3.15%	-0.50
10/5/2022	\$38.72	\$39.42	-1.79%	-0.32%	0.01%	-0.37%	-1.42%	-0.22
10/6/2022	\$40.12	\$38.72	3.55%	-0.94%	-0.54%	-1.16%	4.70%	0.74

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
10/7/2022	\$37.79	\$40.12	-5.97%	-2.78%	-2.67%	-3.87%	-2.10%	-0.33
10/10/2022	\$34.14	\$37.79	-10.17%	-0.82%	-0.67%	-1.23%	-8.93%	-1.41
10/11/2022	\$33.62	\$34.14	-1.52%	-0.64%	0.69%	0.12%	-1.64%	-0.26
10/12/2022	\$33.77	\$33.62	0.43%	-0.29%	0.49%	0.05%	0.38%	0.06
10/13/2022	\$35.14	\$33.77	4.00%	2.32%	1.93%	2.48%	1.52%	0.24
10/14/2022	\$34.62	\$35.14	-1.49%	-2.40%	-1.54%	-2.77%	1.27%	0.20
10/17/2022	\$33.97	\$34.62	-1.91%	2.64%	2.04%	2.76%	-4.66%	-0.74
10/18/2022	\$32.95	\$33.97	-3.04%	1.15%	0.06%	0.25%	-3.29%	-0.52
10/19/2022	\$31.39	\$32.95	-4.87%	-0.90%	-3.35%	-3.88%	-0.99%	-0.16
10/20/2022	\$32.24	\$31.39	2.70%	-0.75%	-0.57%	-1.13%	3.83%	0.61
10/21/2022	\$33.21	\$32.24	2.95%	2.19%	2.56%	3.07%	-0.12%	-0.02
10/24/2022	\$32.25	\$33.21	-2.95%	0.87%	0.86%	0.90%	-3.85%	-0.61
10/25/2022	\$32.58	\$32.25	1.03%	1.81%	1.68%	2.04%	-1.01%	-0.16
10/26/2022	\$33.72	\$32.58	3.44%	-0.46%	1.43%	0.95%	2.49%	0.39
10/27/2022	\$33.14	\$33.72	-1.71%	-0.41%	-1.45%	-1.85%	0.13%	0.02
10/28/2022	\$34.93	\$33.14	5.26%	2.11%	4.05%	4.46%	0.80%	0.13
10/31/2022	\$34.61	\$34.93	-0.94%	-0.60%	-0.86%	-1.31%	0.37%	0.06
11/1/2022	\$34.09	\$34.61	-1.50%	-0.22%	0.87%	0.55%	-2.05%	-0.32
11/2/2022	\$34.10	\$34.09	0.03%	-2.54%	-1.45%	-2.61%	2.64%	0.42
11/3/2022	\$32.56	\$34.10	-4.62%	-0.89%	0.10%	-0.59%	-4.03%	-0.66
11/4/2022	\$33.51	\$32.56	2.88%	1.31%	0.16%	0.32%	2.56%	0.42
11/7/2022	\$32.20	\$33.51	-4.01%	0.81%	0.48%	0.45%	-4.46%	-0.73
11/8/2022	\$32.99	\$32.20	2.44%	0.53%	0.91%	0.69%	1.74%	0.29
11/9/2022	\$32.73	\$32.99	-0.80%	-2.14%	-1.24%	-2.29%	1.49%	0.24
11/10/2022	\$33.17	\$32.73	1.33%	5.38%	3.51%	4.86%	-3.53%	-0.58
11/11/2022	\$35.77	\$33.17	7.55%	1.05%	0.17%	0.13%	7.42%	1.23
11/14/2022	\$39.01	\$35.77	8.67%	-0.96%	0.27%	-0.29%	8.97%	1.49
11/15/2022	\$38.19	\$39.01	-2.11%	1.01%	0.37%	0.40%	-2.51%	-0.41
11/16/2022	\$33.28	\$38.19	-13.76%	-0.98%	-0.92%	-1.37%	-12.38%	-2.06 **
11/17/2022	\$32.98	\$33.28	-0.90%	-0.41%	-0.21%	-0.58%	-0.32%	-0.05
11/18/2022	\$31.92	\$32.98	-3.27%	0.42%	0.53%	0.50%	-3.77%	-0.65
11/21/2022	\$31.02	\$31.92	-2.87%	-0.46%	-0.63%	-0.93%	-1.94%	-0.33
11/22/2022	\$31.40	\$31.02	1.22%	1.32%	0.88%	1.02%	0.20%	0.04
11/23/2022	\$32.25	\$31.40	2.68%	0.59%	-0.41%	-0.47%	3.15%	0.55
11/25/2022	\$33.41	\$32.25	3.54%	0.04%	0.11%	-0.07%	3.61%	0.62
11/28/2022	\$32.35	\$33.41	-3.25%	-1.58%	-0.67%	-1.31%	-1.94%	-0.34
11/29/2022	\$32.80	\$32.35	1.40%	-0.07%	-0.24%	-0.48%	1.88%	0.33
11/30/2022	\$33.18	\$32.80	1.14%	2.90%	3.19%	3.76%	-2.63%	-0.46
12/1/2022	\$32.58	\$33.18	-1.82%	0.02%	0.41%	0.21%	-2.03%	-0.35
12/2/2022	\$34.30	\$32.58	5.14%	-0.06%	1.21%	1.00%	4.14%	0.72
12/5/2022	\$32.02	\$34.30	-6.88%	-1.96%	-2.15%	-2.79%	-4.09%	-0.71
12/6/2022	\$31.86	\$32.02	-0.47%	-1.42%	-1.65%	-2.17%	1.70%	0.29
12/7/2022	\$35.18	\$31.86	9.91%	-0.19%	0.96%	0.73%	9.18%	1.60
12/8/2022	\$36.81	\$35.18	4.51%	0.73%	1.04%	1.07%	3.44%	0.60
12/9/2022	\$37.05	\$36.81	0.65%	-0.75%	-2.13%	-2.42%	3.07%	0.53
12/12/2022	\$39.73	\$37.05	6.99%	1.29%	0.91%	1.11%	5.88%	1.02
12/13/2022	\$41.77	\$39.73	5.01%	0.73%	1.49%	1.54%	3.47%	0.60
12/14/2022	\$42.08	\$41.77	0.74%	-0.55%	0.66%	0.39%	0.35%	0.06
12/15/2022	\$37.71	\$42.08	-10.98%	-2.44%	-1.83%	-2.55%	-8.43%	-1.46
12/16/2022	\$36.79	\$37.71	-2.46%	-1.04%	-0.89%	-1.29%	-1.17%	-0.20
12/19/2022	\$36.02	\$36.79	-2.11%	-0.97%	-1.91%	-2.19%	0.08%	0.01
12/20/2022	\$35.76	\$36.02	-0.74%	0.19%	1.28%	1.22%	-1.96%	-0.34
12/21/2022	\$35.01	\$35.76	-2.10%	1.45%	1.26%	1.64%	-3.74%	-0.66
12/22/2022	\$31.49	\$35.01	-10.59%	-1.41%	0.00%	-0.44%	-10.15%	-1.78 *
12/23/2022	\$30.03	\$31.49	-4.75%	0.55%	-1.52%	-1.28%	-3.47%	-0.61
12/27/2022	\$26.29	\$30.03	-13.30%	-0.39%	-2.24%	-2.33%	-10.97%	-1.91 *
12/28/2022	\$25.64	\$26.29	-2.51%	-1.24%	-0.30%	-0.73%	-1.79%	-0.31
12/29/2022	\$26.72	\$25.64	4.12%	1.82%	2.10%	2.45%	1.67%	0.29

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
12/30/2022	\$27.27	\$26.72	2.05%	-0.25%	0.32%	0.16%	1.89%	0.33
1/3/2023	\$25.72	\$27.27	-5.85%	-0.39%	-0.93%	-1.19%	-4.66%	-0.81
1/4/2023	\$27.68	\$25.72	7.33%	0.95%	1.11%	1.24%	6.10%	1.06
1/5/2023	\$28.13	\$27.68	1.59%	-1.10%	0.21%	-0.15%	1.75%	0.30
1/6/2023	\$27.51	\$28.13	-2.21%	2.20%	1.37%	1.72%	-3.93%	-0.68
1/9/2023	\$27.82	\$27.51	1.11%	0.11%	-2.33%	-2.92%	4.03%	0.70
1/10/2023	\$30.21	\$27.82	8.23%	0.73%	1.84%	2.01%	6.23%	1.09
1/11/2023	\$34.41	\$30.21	13.04%	1.25%	0.36%	0.43%	12.61%	2.19 **
1/12/2023	\$33.23	\$34.41	-3.52%	0.57%	1.18%	1.33%	-4.85%	-0.83
1/13/2023	\$33.23	\$33.23	0.02%	0.43%	0.76%	0.80%	-0.78%	-0.13
1/17/2023	\$33.68	\$33.23	1.34%	-0.11%	-0.06%	-0.23%	1.57%	0.27
1/18/2023	\$33.32	\$33.68	-1.08%	-1.43%	-0.69%	-1.19%	0.11%	0.02
1/19/2023	\$32.24	\$33.32	-3.30%	-0.75%	-1.03%	-1.41%	-1.89%	-0.33
1/20/2023	\$33.96	\$32.24	5.19%	1.79%	0.91%	1.28%	3.92%	0.68
1/23/2023	\$35.60	\$33.96	4.73%	1.17%	0.61%	0.85%	3.88%	0.67
1/24/2023	\$28.63	\$35.60	-21.81%	-0.11%	0.37%	0.32%	-22.13%	-3.82 ***
1/25/2023	\$26.76	\$28.63	-6.73%	0.03%	0.05%	0.03%	-6.75%	-1.16
1/26/2023	\$27.12	\$26.76	1.31%	1.03%	0.06%	0.24%	1.08%	0.19
1/27/2023	\$28.14	\$27.12	3.72%	0.35%	0.03%	0.03%	3.69%	0.64
1/30/2023	\$26.44	\$28.14	-6.25%	-1.31%	-1.56%	-2.05%	-4.21%	-0.73
1/31/2023	\$27.12	\$26.44	2.55%	1.54%	1.18%	1.55%	0.99%	0.17
2/1/2023	\$27.96	\$27.12	3.04%	1.11%	-0.18%	0.05%	3.00%	0.52
2/2/2023	\$30.59	\$27.96	8.99%	1.37%	0.00%	0.30%	8.69%	1.50
2/3/2023	\$30.01	\$30.59	-1.91%	-1.07%	-0.38%	-0.80%	-1.11%	-0.19
2/6/2023	\$28.69	\$30.01	-4.49%	-0.72%	-0.54%	-0.84%	-3.64%	-0.62
2/7/2023	\$28.86	\$28.69	0.58%	1.14%	0.36%	0.66%	-0.08%	-0.01
2/8/2023	\$28.66	\$28.86	-0.71%	-1.04%	-2.38%	-2.78%	2.07%	0.36
2/9/2023	\$27.78	\$28.66	-3.10%	-0.89%	-0.35%	-0.75%	-2.36%	-0.40
2/10/2023	\$27.34	\$27.78	-1.60%	0.15%	0.33%	0.27%	-1.87%	-0.32
2/13/2023	\$26.00	\$27.34	-5.04%	1.08%	1.03%	1.25%	-6.29%	-1.08
2/14/2023	\$25.25	\$26.00	-2.92%	0.09%	-0.12%	-0.28%	-2.64%	-0.46
2/15/2023	\$25.60	\$25.25	1.37%	0.44%	-0.07%	-0.12%	1.50%	0.26
2/16/2023	\$25.64	\$25.60	0.15%	-1.28%	-1.40%	-2.01%	2.16%	0.37
2/17/2023	\$26.30	\$25.64	2.54%	-0.29%	1.28%	0.99%	1.55%	0.27
2/21/2023	\$24.57	\$26.30	-6.78%	-2.07%	-2.50%	-3.35%	-3.43%	-0.59
2/22/2023	\$24.53	\$24.57	-0.16%	-0.06%	0.12%	-0.07%	-0.09%	-0.02
2/23/2023	\$24.78	\$24.53	1.01%	0.49%	-0.55%	-0.55%	1.56%	0.27
2/24/2023	\$24.19	\$24.78	-2.43%	-1.02%	-1.95%	-2.41%	-0.02%	0.00
2/27/2023	\$24.02	\$24.19	-0.70%	0.33%	0.44%	0.43%	-1.13%	-0.20
2/28/2023	\$23.88	\$24.02	-0.57%	-0.26%	0.22%	-0.01%	-0.56%	-0.10
3/1/2023	\$24.34	\$23.88	1.88%	-0.32%	0.58%	0.33%	1.56%	0.27
3/2/2023	\$24.68	\$24.34	1.40%	0.65%	-0.18%	-0.12%	1.51%	0.26
3/3/2023	\$25.74	\$24.68	4.20%	1.54%	1.43%	1.76%	2.44%	0.43
3/6/2023	\$25.47	\$25.74	-1.04%	-0.18%	-1.06%	-1.20%	0.17%	0.03
3/7/2023	\$24.48	\$25.47	-3.96%	-1.47%	-1.22%	-1.71%	-2.24%	-0.39
3/8/2023	\$24.22	\$24.48	-1.09%	0.13%	-0.75%	-0.78%	-0.31%	-0.05
3/9/2023	\$24.18	\$24.22	-0.18%	-1.95%	-1.97%	-2.56%	2.39%	0.42
3/10/2023	\$24.14	\$24.18	-0.14%	-1.66%	-1.45%	-1.95%	1.80%	0.32
3/13/2023	\$24.86	\$24.14	2.94%	-0.31%	2.70%	2.51%	0.43%	0.08
3/14/2023	\$25.20	\$24.86	1.34%	1.57%	1.13%	1.43%	-0.09%	-0.02
3/15/2023	\$25.17	\$25.20	-0.13%	-0.93%	-0.44%	-0.74%	0.61%	0.11
3/16/2023	\$25.99	\$25.17	3.23%	1.62%	0.56%	0.89%	2.34%	0.41
3/17/2023	\$25.59	\$25.99	-1.55%	-1.21%	-1.67%	-1.97%	0.42%	0.07
3/20/2023	\$25.41	\$25.59	-0.69%	0.87%	1.12%	1.23%	-1.93%	-0.34
3/21/2023	\$24.98	\$25.41	-1.71%	1.38%	-0.15%	0.09%	-1.80%	-0.32
3/22/2023	\$23.04	\$24.98	-8.11%	-1.66%	-2.10%	-2.48%	-5.63%	-0.99
3/23/2023	\$23.13	\$23.04	0.41%	0.18%	1.25%	1.18%	-0.77%	-0.14
3/24/2023	\$23.42	\$23.13	1.23%	0.47%	1.14%	1.13%	0.10%	0.02

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
3/27/2023	\$23.34	\$23.42	-0.33%	0.32%	0.27%	0.23%	-0.56%	-0.10
3/28/2023	\$22.80	\$23.34	-2.36%	-0.08%	0.13%	-0.01%	-2.36%	-0.42
3/29/2023	\$23.08	\$22.80	1.23%	1.37%	1.24%	1.41%	-0.17%	-0.03
3/30/2023	\$23.29	\$23.08	0.90%	0.55%	-0.64%	-0.64%	1.55%	0.27
3/31/2023	\$23.43	\$23.29	0.62%	1.45%	1.40%	1.63%	-1.01%	-0.18
4/3/2023	\$23.39	\$23.43	-0.19%	0.31%	0.52%	0.48%	-0.68%	-0.12
4/4/2023	\$23.19	\$23.39	-0.85%	-0.66%	-0.75%	-0.99%	0.14%	0.03
4/5/2023	\$23.03	\$23.19	-0.69%	-0.41%	0.66%	0.50%	-1.19%	-0.21
4/6/2023	\$23.27	\$23.03	1.02%	0.31%	1.22%	1.21%	-0.19%	-0.03
4/10/2023	\$22.21	\$23.27	-4.65%	0.22%	-0.60%	-0.58%	-4.06%	-0.73
4/11/2023	\$22.64	\$22.21	1.92%	0.18%	0.15%	0.16%	1.77%	0.32
4/12/2023	\$22.22	\$22.64	-1.90%	-0.40%	-0.25%	-0.29%	-1.61%	-0.29
4/13/2023	\$22.79	\$22.22	2.55%	1.27%	2.13%	2.39%	0.16%	0.03
4/14/2023	\$22.60	\$22.79	-0.85%	-0.27%	-0.85%	-0.89%	0.04%	0.01
4/17/2023	\$23.77	\$22.60	5.06%	0.36%	0.95%	1.05%	4.01%	0.73
4/18/2023	\$23.74	\$23.77	-0.14%	0.07%	-0.50%	-0.49%	0.35%	0.06
4/19/2023	\$23.40	\$23.74	-1.45%	-0.05%	0.53%	0.59%	-2.04%	-0.37
4/20/2023	\$22.58	\$23.40	-3.54%	-0.58%	-0.81%	-0.87%	-2.67%	-0.48
4/21/2023	\$22.80	\$22.58	0.98%	0.06%	1.16%	1.27%	-0.29%	-0.05
4/24/2023	\$22.18	\$22.80	-2.76%	0.04%	-0.52%	-0.40%	-2.36%	-0.44
4/25/2023	\$21.24	\$22.18	-4.35%	-1.68%	-1.22%	-1.37%	-2.99%	-0.55
4/26/2023	\$20.93	\$21.24	-1.46%	-0.41%	-1.44%	-1.41%	-0.05%	-0.01
4/27/2023	\$21.94	\$20.93	4.69%	1.72%	0.40%	0.86%	3.83%	0.71
4/28/2023	\$22.65	\$21.94	3.22%	0.80%	0.73%	1.01%	2.21%	0.41
5/1/2023	\$22.64	\$22.65	-0.05%	-0.07%	0.95%	1.01%	-1.06%	-0.20
5/2/2023	\$21.52	\$22.64	-5.09%	-1.23%	-1.43%	-1.69%	-3.40%	-0.64
5/3/2023	\$21.58	\$21.52	0.28%	-0.52%	0.70%	0.58%	-0.30%	-0.06
5/4/2023	\$21.70	\$21.58	0.58%	-0.69%	-0.12%	-0.27%	0.85%	0.16
5/5/2023	\$21.77	\$21.70	0.29%	1.86%	1.65%	2.30%	-2.01%	-0.38
5/8/2023	\$22.39	\$21.77	2.80%	0.08%	-0.79%	-0.67%	3.48%	0.65
5/9/2023	\$25.88	\$22.39	14.49%	-0.39%	0.15%	0.07%	14.42%	2.70 ***
5/10/2023	\$26.24	\$25.88	1.40%	0.41%	0.40%	0.66%	0.74%	0.14
5/11/2023	\$27.10	\$26.24	3.21%	-0.26%	-0.76%	-0.74%	3.95%	0.73
5/12/2023	\$25.88	\$27.10	-4.59%	-0.19%	-0.33%	-0.26%	-4.32%	-0.80
5/15/2023	\$25.78	\$25.88	-0.40%	0.50%	1.34%	1.59%	-1.99%	-0.37
5/16/2023	\$24.58	\$25.78	-4.76%	-0.81%	-2.47%	-2.46%	-2.30%	-0.43
5/17/2023	\$24.63	\$24.58	0.20%	1.23%	0.33%	0.86%	-0.66%	-0.12
5/18/2023	\$23.99	\$24.63	-2.65%	0.84%	-0.42%	0.02%	-2.68%	-0.50
5/19/2023	\$23.58	\$23.99	-1.69%	-0.19%	0.86%	0.78%	-2.47%	-0.46
5/22/2023	\$24.52	\$23.58	3.91%	0.19%	0.63%	0.68%	3.23%	0.60
5/23/2023	\$24.60	\$24.52	0.33%	-1.05%	0.04%	-0.36%	0.68%	0.13
5/24/2023	\$24.54	\$24.60	-0.27%	-0.80%	-1.31%	-1.42%	1.15%	0.22
5/25/2023	\$23.65	\$24.54	-3.70%	0.49%	-2.07%	-1.61%	-2.09%	-0.39
5/26/2023	\$23.01	\$23.65	-2.73%	1.25%	0.12%	0.57%	-3.30%	-0.62
5/30/2023	\$22.26	\$23.01	-3.31%	-0.02%	-0.65%	-0.60%	-2.71%	-0.51
5/31/2023	\$22.11	\$22.26	-0.70%	-0.57%	0.55%	0.28%	-0.98%	-0.18
6/1/2023	\$21.97	\$22.11	-0.63%	1.01%	0.24%	0.55%	-1.18%	-0.22
6/2/2023	\$22.57	\$21.97	2.71%	1.61%	1.74%	2.07%	0.64%	0.12
6/5/2023	\$22.23	\$22.57	-1.51%	-0.28%	0.40%	0.27%	-1.78%	-0.34
6/6/2023	\$22.67	\$22.23	1.96%	0.52%	-0.16%	-0.06%	2.02%	0.39
6/7/2023	\$23.46	\$22.67	3.42%	-0.20%	-0.33%	-0.43%	3.85%	0.75
6/8/2023	\$23.92	\$23.46	1.92%	0.52%	0.47%	0.57%	1.35%	0.26
6/9/2023	\$23.65	\$23.92	-1.10%	0.01%	-0.59%	-0.55%	-0.55%	-0.11
6/12/2023	\$23.98	\$23.65	1.36%	0.85%	0.83%	1.01%	0.34%	0.07
6/13/2023	\$24.91	\$23.98	3.80%	0.75%	1.19%	1.29%	2.51%	0.49
6/14/2023	\$24.69	\$24.91	-0.85%	0.01%	-0.78%	-0.74%	-0.11%	-0.02
6/15/2023	\$24.45	\$24.69	-0.99%	1.16%	1.22%	1.39%	-2.39%	-0.47
6/16/2023	\$24.04	\$24.45	-1.69%	-0.38%	-0.37%	-0.41%	-1.27%	-0.25

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
6/20/2023	\$24.18	\$24.04	0.58%	-0.54%	-0.51%	-0.59%	1.17%	0.23
6/21/2023	\$24.64	\$24.18	1.86%	-0.47%	-0.43%	-0.51%	2.37%	0.48
6/22/2023	\$24.84	\$24.64	0.84%	0.18%	0.09%	0.10%	0.74%	0.15
6/23/2023	\$24.35	\$24.84	-2.01%	-0.85%	-1.25%	-1.29%	-0.73%	-0.15
6/26/2023	\$23.12	\$24.35	-5.17%	-0.27%	-1.27%	-1.11%	-4.06%	-0.82
6/27/2023	\$23.41	\$23.12	1.23%	1.16%	-1.14%	-0.48%	1.71%	0.35
6/28/2023	\$23.14	\$23.41	-1.17%	0.05%	0.51%	0.35%	-1.52%	-0.31
6/29/2023	\$23.16	\$23.14	0.10%	0.47%	-0.54%	-0.24%	0.34%	0.07
6/30/2023	\$24.00	\$23.16	3.56%	1.10%	0.85%	1.03%	2.54%	0.51
7/3/2023	\$24.65	\$24.00	2.68%	0.21%	-0.50%	-0.30%	2.98%	0.60
7/5/2023	\$21.64	\$24.65	-13.04%	-0.33%	0.30%	0.06%	-13.10%	-2.65 ***
7/6/2023	\$22.40	\$21.64	3.45%	-0.97%	-1.35%	-1.43%	4.88%	0.98
7/7/2023	\$21.72	\$22.40	-3.07%	0.00%	-0.85%	-0.61%	-2.46%	-0.49
7/10/2023	\$21.38	\$21.72	-1.56%	0.41%	1.81%	1.53%	-3.09%	-0.62
7/11/2023	\$21.66	\$21.38	1.30%	0.77%	0.10%	0.42%	0.88%	0.18
7/12/2023	\$21.60	\$21.66	-0.30%	0.80%	0.87%	1.00%	-1.30%	-0.26
7/13/2023	\$21.50	\$21.60	-0.44%	0.93%	0.41%	0.72%	-1.16%	-0.23
7/14/2023	\$21.22	\$21.50	-1.35%	-0.30%	-0.19%	-0.23%	-1.12%	-0.23
7/17/2023	\$21.42	\$21.22	0.96%	0.45%	0.67%	0.69%	0.27%	0.05
7/18/2023	\$20.84	\$21.42	-2.72%	0.73%	0.33%	0.56%	-3.28%	-0.66
7/19/2023	\$20.99	\$20.84	0.70%	0.26%	0.39%	0.39%	0.31%	0.06
7/20/2023	\$20.97	\$20.99	-0.07%	-0.72%	-0.30%	-0.51%	0.44%	0.09
7/21/2023	\$21.12	\$20.97	0.71%	0.01%	0.68%	0.50%	0.21%	0.04
7/24/2023	\$20.22	\$21.12	-4.40%	0.33%	-1.49%	-0.93%	-3.46%	-0.70
7/25/2023	\$19.88	\$20.22	-1.70%	0.23%	-0.24%	-0.09%	-1.61%	-0.32
7/26/2023	\$19.66	\$19.88	-1.08%	0.08%	-0.29%	-0.19%	-0.88%	-0.18
7/27/2023	\$19.92	\$19.66	1.32%	-0.75%	-0.66%	-0.77%	2.09%	0.42
7/28/2023	\$20.52	\$19.92	2.93%	1.06%	1.69%	1.70%	1.23%	0.25
7/31/2023	\$21.47	\$20.52	4.55%	0.32%	-0.09%	0.09%	4.47%	0.90
8/1/2023	\$21.30	\$21.47	-0.83%	-0.37%	-0.90%	-0.70%	-0.13%	-0.03
8/2/2023	\$20.59	\$21.30	-3.39%	-1.45%	-0.69%	-1.12%	-2.27%	-0.46
8/3/2023	\$20.40	\$20.59	-0.88%	-0.24%	-0.28%	-0.27%	-0.61%	-0.13
8/4/2023	\$19.66	\$20.40	-3.73%	-0.42%	0.42%	0.06%	-3.79%	-0.78
8/7/2023	\$18.54	\$19.66	-5.87%	0.75%	-0.56%	0.06%	-5.93%	-1.22
8/8/2023	\$18.35	\$18.54	-1.00%	-0.48%	0.65%	0.34%	-1.33%	-0.28
8/9/2023	\$18.23	\$18.35	-0.69%	-0.65%	0.36%	0.01%	-0.71%	-0.15
8/10/2023	\$17.75	\$18.23	-2.65%	0.01%	0.28%	0.18%	-2.83%	-0.59
8/11/2023	\$17.51	\$17.75	-1.37%	-0.09%	0.39%	0.20%	-1.56%	-0.33
8/14/2023	\$17.83	\$17.51	1.80%	0.40%	-0.22%	-0.04%	1.84%	0.38
8/15/2023	\$17.10	\$17.83	-4.15%	-1.19%	-0.27%	-0.83%	-3.32%	-0.69
8/16/2023	\$16.71	\$17.10	-2.32%	-0.79%	-1.21%	-1.39%	-0.93%	-0.19
8/17/2023	\$17.04	\$16.71	1.93%	-0.84%	-0.44%	-0.81%	2.73%	0.57
8/18/2023	\$16.71	\$17.04	-1.95%	0.06%	0.04%	0.01%	-1.95%	-0.41
8/21/2023	\$16.35	\$16.71	-2.14%	0.55%	1.52%	1.42%	-3.56%	-0.75
8/22/2023	\$16.82	\$16.35	2.81%	-0.19%	0.05%	-0.14%	2.95%	0.62
8/23/2023	\$17.02	\$16.82	1.18%	1.10%	0.45%	0.75%	0.43%	0.09
8/24/2023	\$18.01	\$17.02	5.65%	-1.26%	-1.00%	-1.41%	7.05%	1.48
8/25/2023	\$17.95	\$18.01	-0.31%	0.70%	0.59%	0.71%	-1.02%	-0.21
8/28/2023	\$18.95	\$17.95	5.39%	0.71%	0.45%	0.56%	4.84%	1.02
8/29/2023	\$20.65	\$18.95	8.62%	1.31%	0.80%	1.13%	7.49%	1.57
8/30/2023	\$21.12	\$20.65	2.24%	0.38%	0.18%	0.27%	1.97%	0.42
8/31/2023	\$20.45	\$21.12	-3.24%	-0.11%	-0.86%	-0.78%	-2.46%	-0.53
9/1/2023	\$20.53	\$20.45	0.38%	0.28%	0.94%	0.87%	-0.49%	-0.10
9/5/2023	\$20.47	\$20.53	-0.27%	-0.61%	-1.41%	-1.52%	1.25%	0.27
9/6/2023	\$20.05	\$20.47	-2.06%	-0.64%	-0.55%	-0.81%	-1.25%	-0.27
9/7/2023	\$20.62	\$20.05	2.79%	-0.38%	-0.14%	-0.34%	3.13%	0.67
9/8/2023	\$20.60	\$20.62	-0.11%	0.10%	0.37%	0.33%	-0.44%	-0.10
9/11/2023	\$20.13	\$20.60	-2.33%	0.65%	0.45%	0.63%	-2.96%	-0.64

## Exhibit-29

## Cassava Synthetic Stock Daily Event Study Results

Collective Event Study on Top News Article Count Dates

Event Date	Cassava Synthetic Stock Closing Price	Cassava Synthetic Stock Prior Day Closing Price	Cassava Synthetic Stock Logarithmic Return	Market Index Logarithmic Return	Sector Index Logarithmic Return	Cassava Synthetic Stock Explained Return	Cassava Synthetic Stock Residual Return	t-statistic
9/12/2023	\$18.75	\$20.13	-7.07%	-0.48%	0.00%	-0.27%	-6.80%	-1.48
9/13/2023	\$18.88	\$18.75	0.66%	0.00%	-0.59%	-0.71%	1.37%	0.30
9/14/2023	\$19.04	\$18.88	0.86%	0.90%	0.42%	0.62%	0.24%	0.05
9/15/2023	\$18.76	\$19.04	-1.48%	-1.06%	-0.82%	-1.31%	-0.18%	-0.04
9/18/2023	\$17.65	\$18.76	-6.13%	-0.04%	-1.08%	-1.18%	-4.94%	-1.08
9/19/2023	\$17.51	\$17.65	-0.79%	-0.26%	0.36%	0.12%	-0.91%	-0.20
9/20/2023	\$17.83	\$17.51	1.81%	-0.83%	-0.71%	-1.13%	2.94%	0.64
9/21/2023	\$17.08	\$17.83	-4.30%	-1.70%	-1.02%	-1.71%	-2.59%	-0.57
9/22/2023	\$16.92	\$17.08	-0.91%	-0.19%	-0.34%	-0.67%	-0.24%	-0.06
9/25/2023	\$17.14	\$16.92	1.28%	0.34%	-0.30%	-0.36%	1.64%	0.38
9/26/2023	\$16.45	\$17.14	-4.08%	-1.42%	0.72%	-0.79%	-3.29%	-0.88
9/27/2023	\$16.31	\$16.45	-0.90%	0.11%	0.35%	0.03%	-0.94%	-0.26
9/28/2023	\$16.26	\$16.31	-0.26%	0.66%	-0.11%	-0.05%	-0.21%	-0.06
9/29/2023	\$16.12	\$16.26	-0.87%	-0.26%	-0.47%	-0.94%	0.07%	0.02
10/2/2023	\$16.20	\$16.12	0.45%	-0.35%	-1.41%	-1.97%	2.42%	0.70
10/3/2023	\$17.03	\$16.20	5.05%	-1.45%	-0.93%	-2.14%	7.19%	2.08 **
10/4/2023	\$18.20	\$17.03	6.64%	0.70%	0.47%	0.57%	6.07%	1.74 *
10/5/2023	\$18.09	\$18.20	-0.65%	-0.07%	1.49%	1.19%	-1.84%	-0.53
10/6/2023	\$18.42	\$18.09	1.86%	1.14%	0.56%	1.06%	0.80%	0.23
10/9/2023	\$18.01	\$18.42	-2.27%	0.61%	-0.52%	-0.37%	-1.90%	-0.55
10/10/2023	\$18.50	\$18.01	2.69%	0.64%	0.77%	0.94%	1.76%	0.51
10/11/2023	\$17.70	\$18.50	-4.44%	0.38%	0.31%	0.31%	-4.75%	-1.37
10/12/2023	\$16.89	\$17.70	-4.69%	-0.85%	-1.58%	-2.36%	-2.33%	-0.68

Sources: Bloomberg, CRSP, and computations performed by Crowninshield Financial Research, Inc.

## Notes:

"\*" indicates statistical significance at the 90% confidence level.

"\*\*\*" indicates statistical significance at the 95% confidence level.

"\*\*\*\*" indicates statistical significance at the 99% confidence level.